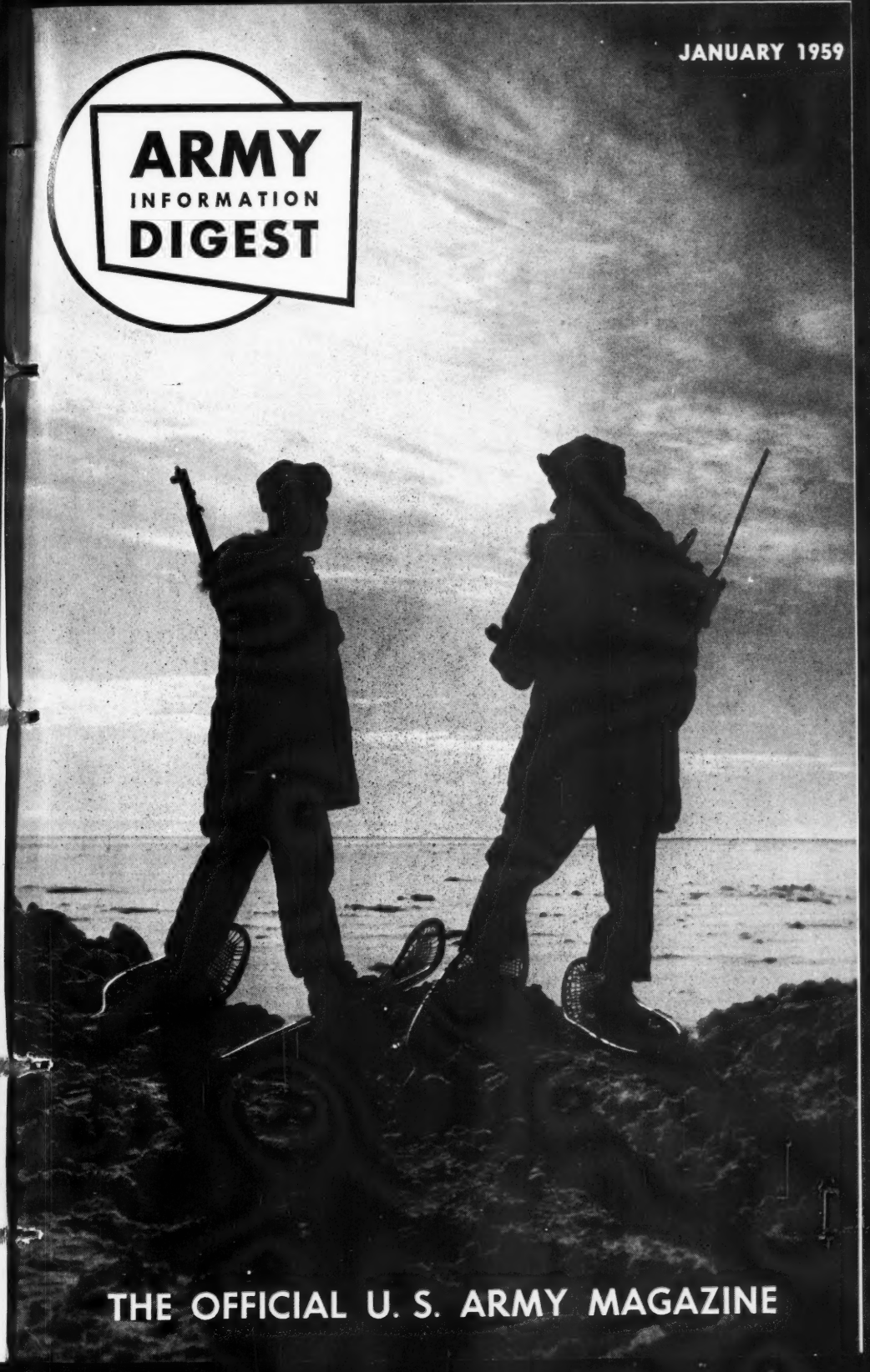
JANUARY 1959

ARMY INFORMATION DIGEST



THE OFFICIAL U. S. ARMY MAGAZINE

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ARMY INFORMATION DIGEST

THE OFFICIAL MAGAZINE of the DEPARTMENT OF THE ARMY

The mission of ARMY INFORMATION DIGEST is to keep personnel of the Army aware of trends and developments of professional concern.

THE DIGEST is published under supervision of the Army Chief of Information to provide timely and authoritative information on policies, plans, operations, and technical developments of the Department of the Army to the Active Army, Army National Guard, and Army Reserve. It also serves as a vehicle for timely expression of the views of the Secretary of the Army and the Chief of Staff and assists in the achievement of information objectives of the Army.

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ADDITION of a 49th star to the constellation of states has generated increasing public awareness of the strategic importance of Alaska, where on a clear day the Soviet Far East can actually be seen across the Bering Strait. On front cover, peering across the bleak three-mile expanse which separates their home on Little Diomede from Russian-held Big Diomede, are two Eskimo scout members of the 1st Scout Battalion, Alaska National Guard. Citizen-soldiers such as these are among the U. S. troops maintaining the vigil, as described in "Rampart to the North."

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The state of defense

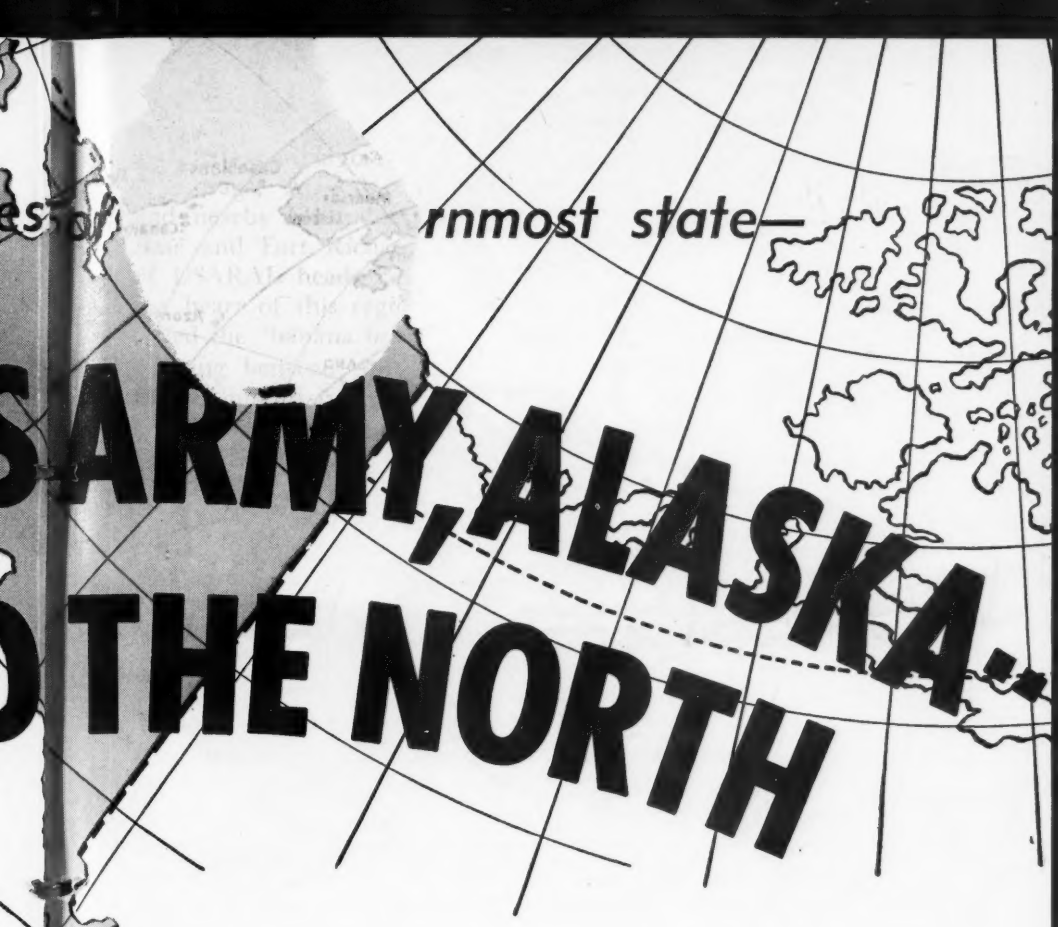
UNITED STATES A PART TO

Major General
Gilman C. Mudgett

ALASKA, newest of the forty-nine states—spanning as many time zones as the other forty-eight and stretching north-south the distance from Minneapolis to New Orleans—is "home" for thousands of U. S. Army, Alaska, soldiers.

USARAL (Yooce'-er-all) is the major Army component of the Alaskan Command, a unified command established in 1947 and

MAJOR GENERAL GILMAN C. MUDGETT is Commanding General, United States Army, Alaska.



rnmost state—

S ARMY, ALASKA...
O THE NORTH

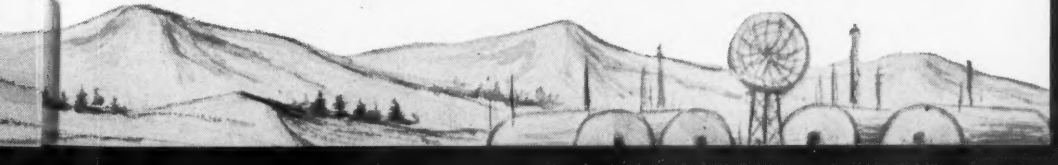
headed by Lieutenant General Frank A. Armstrong, Jr. Cooperating with Navy and Air Force elements of Alaskan Command, USARAL has the primary mission of ground and air defense of Alaska.

National interest focused on Alaska recently as it approached full statehood status. Accurate descriptions of this sprawling 586,000 square-mile state appearing in nationwide publications have largely dispelled the prevalent misconception of Alaska as a land of continual ice and snow. But certain misconceptions do continue concerning geography and weather.

A glance at a Mercator projection world map misplaces Alaska. It appears in the upper left hand corner, far removed from the population and industrial centers of the northern hemisphere.

In this day of missiles and long-range aircraft, the polar projection map places Alaska in its true perspective. Within four thousand miles of Fairbanks, which is virtually the center of Alaska, lie the major centers of population and industry in the United States and most of the Soviet Union. Nowhere else on United States soil is this factor true.

Alaska is next door to the Soviet



Far East. On a clear day, the Chukotsky Peninsula can be *seen* from St. Lawrence Island or Little Diomede. Thus the strategic importance of Alaska, by its location alone, becomes apparent.

REGIONAL FEATURES

STRETCHING across seventeen degrees of latitude, bordered by the sea and compartmented by soaring mountain ranges, Alaska has six main regions, each with its own weather. These are called Southeastern, Pacific Coast, Interior, Arctic, Western Approaches and Aleutian Chain.

Southeastern Alaska (called the "panhandle") resembles Washington State weatherwise and includes the old capital of Sitka, the present capital of Juneau and the towns of Ketchikan, Haines and Skagway. The island-bordered coastline is cut by deep fiords and walled by high, rugged mountains.

Adjacent to the Panhandle on the south and extending west to the Alaska Peninsula is the Pacific Coast Region. Rimmed by the Alaska Range which includes Mount McKinley (highest point in North America), and warmed by the Japanese Current, this area has

a climate similar to New England. Anchorage, Alaska's largest city, and nearby Elmendorf Air Force Base and Fort Richardson, home of USARAL headquarters, are in the heart of this region which is called the "banana belt."

Lying between the Alaska and Brooks mountain ranges, the Interior extends from the Alaska-Canadian border to the Western Approaches. Fairbanks, with nearby Ladd and Eielson Air Force Bases, is near the center of this area and has a climate resembling that of North Dakota and Montana. January daily temperatures average —11.6°F.

About one third of Alaska is included in the Arctic region lying north of the Brooks Range. A barren region, the land is largely tundra with only six to eight inches of precipitation per year, mostly in the form of snow. The weather here is so rigorous as to discourage any general settlement.

Western Approaches include the broad area which lies west of interior Alaska extending to the Bering Sea. Coastal winds in excess of 100 knots, fog and rain make the winter and summer climate generally disagreeable. The Aleutian Chain is a chain of volcanic islands over 1500 miles long with constantly varying and generally unattractive weather conditions. Attu, westernmost of the Aleutians, was the scene of the only land combat in North America during World War II.

In recent years the Soviet Union has exhibited great interest in conducting operations in the Arctic, especially in Siberia. From this it must be assumed that they have not overlooked the military potentials of the Chukotsky Peninsula areas. This close-by Soviet territory is a logical one from which to launch air and missile attacks against the United States. It is here that the military forces of Alaska stand face-to-face with the Communists.

DEFENSE FORCES

THE general mission of United States Army, Alaska, is to plan, provide for, and be prepared to participate in the ground and air defense of the territory. Added are responsibilities for developing cold weather and mountain warfare doctrine, conducting the U. S. Army Cold Weather and Mountain School, and providing logistical support for Army, Air Force and other Department of Defense agencies in Alaska.

The USARAL organization has been tailored to provide for the most responsive, efficient and economical accomplishment of these assigned missions. Major forces of the command are located at Fort Richardson (Anchorage), Port of Whittier, Wildwood Station (Kenai), Ladd and Eielson Air Force Bases (Fairbanks), and Fort Greely (Big Delta).

To provide battle group commanders with combined arms support which would normally be available from other sources within an infantry division, additional units have been assigned in Alaska. These units include a tank company (76mm gun), an armored field artillery battery (105mm SP), an engineer combat company (augmented with personnel and equipment normally found in the engineer battalion headquarters company), and a transportation company (armored carrier).

Units of these reinforced battle groups have been provided over-snow vehicles (M76 Otters, M29 Weasels and M59 personnel carriers) to insure their cross-country mobility. The reinforced battle groups as organized in USARAL provide the commanding general with efficient, flexible and highly mobile combat forces.

At present, USARAL has air defense artillery battalions at key Air Force bases and other major command locations.

Soon to take its place in the USARAL arsenal is the Nike-Hercules, successor to Nike-Ajax. Nike-Hercules will replace 120mm guns now located near principal bases in Alaska.

Nike-Hercules tactical sites in Alaska will be of modern permanent construction that provides for a great degree of automation in the operation of the weapons systems. Comfortable and roomy quarters will protect both men and equipment from sub-zero weather. Defenses will be controlled by completely integrated Army-Air Force control centers.

THE mission of Army aviation in Alaska can be described by one word—Support. Four different support type aviation units have been formed at six different locations.

Air support is provided for the Cold Weather and Mountain School at Fort Greely, battle groups near Fairbanks and Anchorage, and the Alaska National Guard at Nome, Bethel, and Juneau.

The extremes of weather and terrain require high pilot proficiency with wheel, ski, and float-equipped aircraft. In a vast wilderness that has never been acclaimed for its abundance of radio facilities or navigational aids, pilot ingenuity are invaluable assets. Currently, the L-19, L-20, L-23, H-13 and H-21 type Army aircraft now used in Alaska have been found capable of operating under a wide variety of conditions and temperatures approaching —60°F.

COLD WEATHER TRAINING

LESSONS learned in World War II and the Korean War showed that the Army's capabilities for combat were weakest in cold weather climates. It was apparent that men and equipment had to be extensively trained and tested in northern latitudes to provide combat-ready cold weather forces.

Since 1947 the Department of the Army has conducted maneuvers in Alaska nearly every winter to test cold weather doctrine and provide tactical training under simulated combat conditions.

Normally, one of the units is drawn from USARAL while another is sent from continental United States. Last winter in Exercise Cold Bay, the 2d Battle Group, 39th Infantry from Fort Lewis, Washington opposed USARAL's 1st Battle Group, 9th Infantry. For this year's maneuver, Exercise Caribou Creek, the 2d Airborne Battle Group, 503d Infantry from Fort Bragg, will face 1st Battle Group. 23d Infantry.

Units arriving from CONUS receive a three to four-week training period in Alaska before the two-week field exercise begins. The stateside units become acclimated, learn to ski and snowshoe, and gain familiarity with cold weather equipment.

Well versed in both defensive and offensive cold weather tactics, a USARAL soldier readies a rocket launcher for action in a maneuver.

THOUGH the winter maneuver is the highlight of annual training for USARAL troops, local training activities continue throughout the year.

A morale boosting slant has been given winter training by the organization of ski-fire patrol teams by company level units throughout the command. In this competitive event, men are sent over a cross-country ski course varying in length from 7 to 13 miles. At points en route they fire at varied range silhouette targets. Near the end of each winter season, a champion team from posts south of the Alaska Range competes with a team from north of the range to determine the USARAL champion.

Another competition of widespread interest involves the selection and training of a biathlon team to represent the United States in future international and Olympic competitions. Training is conducted at Fort Richardson over a cross-country course resembling that found in typical European ski areas. The team which will emerge from the training squad is scheduled to take part in an international competition to be held in Italy early in 1959.

LONG-RANGE patrols are carried out each summer and winter by combat units in Alaska. While conducted primarily for training purposes, these patrols have become the most reliable and often the only source of information concerning remote regions of the new state.

Patrols may be two men with a dog sled, or a platoon. Routes are selected to test physical endurance and ingenuity, and use is made of small aircraft, river boats, dog sleds, skis, and snow shoes. The patrols return with information concerning weather and terrain, and provide a continuing source of information on villages and their

Each year, as part of winter training, troops stage a ski-firing meet. Here a group starts out on nine-mile course which includes three firing points along the way.

Students at Cold Weather and Mountain School, above, demonstrate proper descent of a glacier. Below, they learn the art of rapelling under expert instructor guidance.

inhabitants, trails, communications, transportation problems and navigability of inland waterways.

Other sources of information are the two Scout Battalions of the Alaska National Guard. Organized in 1948 among Eskimos and Indians who live in the remote peripheral regions of Alaska, these units are unique both in make-up and mission.

Members of these battalions are scattered among the native villages along the northern and western edges of Alaska, and are organized into units varying from squad to platoon strength. Their native ability to operate in remote and extremely cold areas makes them particularly well-suited for their mission of "reconnaissance, surveillance and patrolling in assigned areas of responsibility."

Seasonal employment and the transient mode of life in remote areas have a definite effect on scout unit strength and training schedules. Active duty training is planned for the late winter, a period of least employment and easiest travel. Arriving at assembly points by dog sled, oversnow vehicles or on foot, the scouts are transported to Fort Richardson by air. There they engage in advanced training in subjects not possible at home stations.

FORTS AND BASES

MOST Army personnel and dependents arriving in Alaska by ship dock at the Port of Whittier. Surrounded by rugged snow-capped peaks and a score of glaciers, the port presents a never-to-be-forgotten sight to the newcomer. Covering less than 100 acres of land, this all-weather port, the only one of its kind in the world, is operated

solely by U. S. Army personnel and has no highway connection to the interior of Alaska. Headquarters, troop barracks and recreational facilities are all compactly located within the Buckner Building. The 14-story Hodge Building furnishes dependent housing for the port. (See "No Time Out For Weather," August 1957 DIGEST.)

Upon arrival, newcomers are transported approximately 60 miles by rail to Anchorage, or 418 miles to Fairbanks, through some of the most spectacular scenery in Alaska.

NORTH of the Alaska Range, the city of Fairbanks combines with Ladd and Eielson Air Force Bases to form the second largest metropolitan area in Alaska.

Ladd AFB is situated one mile east of the city, near the junction of the Tanana and Chena rivers. Housing various Air Force elements, the base serves as home for Headquarters, Yukon Command, and units of 1st Battle Group, 9th Infantry. Modern in all respects, the base is connected with Fairbanks by hard-surfaced, year-around roads.

Eielson AFB is 26 miles southeast of Fairbanks on the Alaska Highway route. The 1st Battle Group, 9th Infantry headquarters is located here along with organic and attached units. New permanent construction includes modern barracks, theater, field house, and shopping facilities as well as family quarters.

FORT GREELY, near Big Delta on the Alaska Highway, is 97 miles southeast from Fairbanks. Fort Greely serves as home for the U. S. Army Cold Weather and Mountain School which conducts courses for officers and men from all the Armed Forces and allied nations. Over 5000 graduates of this school can now pass on their cold weather and mountain "know-how" to others.

Here, too, men from engineering, intelligence and supply branches are taught inland waterway navigation and use of river systems for transport and resupply.

Temperatures in the Fort Greely area often range from 95°F. in mid-summer to a —50° in the winter. The prevailing winds from the northwest have reached a recorded maximum of 100 knots. Average snowfall is 30 inches per year; and precipitation for any one month seldom exceeds three inches.

The typical sub-arctic weather encountered in the region provides a cold-weather testing ground for capabilities of new technological developments. (As an example, a "package" nuclear power plant similar to the Army's pilot plant at Fort Belvoir, Virginia, is now under construction at Fort Greely.)

Operating directly under CONARC, the U. S. Army Arctic Test Board at Fort Greely is manned by officers and men from all branches of the Army; it conducts equipment tests under terrain and weather conditions peculiar to northern latitudes.

Primary purpose of the material testing, school operation and development of new cold weather tactics at this northern outpost is, of course, the maintenance of a combat-ready Army trained to fight in all types of wars.

FORT Richardson, eight miles from Anchorage and adjacent to

Elmendorf Air Force Base, is the largest Army post in Alaska. Within reservation boundaries it houses several lateral commands including the U. S. Army Supply and Maintenance Center, Alaska; 1st Battle Group, 23d Infantry; organic and attached units. Combat and artillery ranges afford ample space for unit training and service practice.

A complete city within itself, the fort has two theaters, commissary, post exchange, service clubs, library, field house, and other facilities. Anchorage itself, a short thirty minute drive away, is the largest city in the territory and is on a par with similar sized cities in the States.

NORTHLAND SUPPLY

AS PART of its logistical mission, USARAL through its U. S. Army Supply and Maintenance Center, Alaska provides supply, maintenance and service support (except hospitalization) for all Army elements stationed in Alaska, support of National Guard and Reserve components, and support of the Air Force in accordance with current inter-service agreements. All technical services are represented at the Center.

Another USARAL responsibility is resupply support of the Distant Early Warning (DEW) line stations along Alaska's west coast and on the Arctic Ocean. Some thirty of these sites receive an annual over-the-beach resupply by landing craft during ice-free summer months. Others are supplied by air or oversnow cat-train.

A vital link in Alaska's defense structure is the Army's Petroleum Distribution System which operates 626 miles of pipeline. The activity involves the scheduling, receiving, storing and distribution of petroleum products to Army and Air Force installations on the Alaskan mainland using available ocean terminals, bulk storage facilities, petroleum pipelines and related equipment. The USARAL Petroleum Distribution System also operates laboratories which test all petroleum products coming to Alaska to assure proper quality control.

SERVICE HIGHLIGHTS

FROM a professional standpoint, assignment to USARAL is highly desirable. In recent years, the Command has vigorously pursued a career development program for both officers and enlisted men. For example, a young officer may be assigned as platoon leader or company commander the first half of his tour, then as post engineer or signal officer during the balance of his stay. It is not uncommon to see an officer serving in a staff position one or two grades below his counterpart at a comparable headquarters in CONUS or another major oversea command. This same pattern holds true for enlisted personnel.

Not only does an Alaskan duty assignment offer unlimited leadership experience in overcoming difficulties peculiar to this "last frontier" country and in training and properly utilizing a unit—it also offers compensation in recreation and relaxation.

An ambitious sports program, designed to attract the maximum number of participants, is conducted. USARAL maintains rec-

Less than an hour's drive from Fort Richardson are many rushing glacier streams where fishermen try their lures on brook trout.

reational facilities at Lake Louise, about 200 miles north of Fort Richardson, where soldiers and their families may vacation, enjoying fishing, boating, swimming or just relaxing.

Weekend trips are popular. Picnicking, camping-out and sightseeing drives to nearby glaciers, lakes, streams and historical points of interest provide a never-ending source of enjoyment to the adventurous during the summer. The Fur Rendezvous, Settler Days, Fishing Derbies and other community celebrations allow photographers and souvenir hunters a chance to practice their hobbies. Winter offers dog-sled races, skiing, ice-skating and hockey and other individual and competitive sports.

With its abundance of fish and wildlife, Alaska is often referred to as a fisherman's and hunter's paradise. Streams and lakes teem with rainbow, steelhead and mackinaw trout, dolly varden, grayling and northern pike. During the summer the coastal streams have annual runs of spawning king, silver, red, humpie and dog salmon.

The hunter is as fortunate as the fisherman. Caribou, large bull moose, the grizzly, brown, black and polar bear can be stalked, and for the small game hunter, hare, wolves, coyotes, ducks, geese and ptarmigan abound.

USARAL has a Fish and Wildlife Conservation Officer who maintains liaison with the Federal and Alaskan Fish and Wildlife Services, disseminates information to the troops, and selects additional Army conservation agents to assist in the enforcement of regulations. The agents instruct soldiers in safety and game conservation.

ANOTHER feature of USARAL assignment is that one can drive a privately owned vehicle to the

command. Travel via the Alaskan Highway is possible the year around. However, in requesting permission to drive to Alaska all phases of the trip should be thoroughly investigated. The Canadian Government as well as the U. S. Department of Commerce can provide information on road conditions and travel accommodations.

In the past, many families have pulled a trailer "up" the highway. This is still possible but trailer living presents many problems during the long winter months, particularly for families with children, and personnel are advised against bringing trailers into the command for this purpose.

On-post housing at the main installations has for many years been an acute problem. The expected waiting period for on-post quarters varies from no waiting time to twelve months at the five major installations. Normally, on-post housing is immediately available to colonels, lieutenant colonels, and enlisted E-8's and E-9's. Many families, of necessity, live part of their tour in civilian lodgings.

Last year, in conjunction with local realtors, military-civilian housing offices were established in Anchorage and Fairbanks. Incoming military personnel seeking off-post housing file a request stating the number of bedrooms, facilities and the like, that they will require. This makes it possible to schedule concurrent travel for a maximum number of families.

GUARDIAN OF THE NORTH

THE 49th state indeed offers a challenge to the Army and to the individual; however, many misconceptions have developed that are unfounded. The population centers adjacent to major military bases are modern and offer many of the commercial and cultural facilities found in the average American community.

To support the military community in Alaska, the Army contributes measurably to the civilian economy. Local procurement alone represents an appreciable investment. During Fiscal Year 1958, the Army in Alaska purchased more than $6.3 million worth of products from local industries and merchants. Food purchases amounted to approximately $4.1 million, produced mainly in the rich farmland of the Matanuska Valley.

ALASKA is rightfully called America's "last frontier"—a land that has long captured the imagination of pioneers and empire builders who have found many opportunities here.

Since 18 October 1867, when the Territory became a part of the United States, the Army has been closely related to Alaska. For many years it represented law and order in the pioneer land, even though prior to World War II the presence of the Army was actually only a token force, the low point occurring during the 1930's when the complement dwindled to two companies.

With World War II, recognition came to Alaska from a military point of view. Today in an age of missiles and high-performance aircraft, the "polar concept" of strategic areas leaves no doubt as to the magnitude of responsibilities vested in USARAL—our rampart to the North.

Developing the theme of "The United States Army—Ready for Action—Any Kind, Any Place, Any Time," the fourth annual meeting of the Association of the U.S. Army brought together leading civilian and military authorities for discussion of the Army's unique capabilities for defense in the modern world. Following are some significant excerpts from addresses by top-level Army spokesmen at the October sessions in Washington:

DETERMINED DETERRENCE—AMERICA'S BEST SAFEGUARD AGAINST AGGRESSION

The Honorable Wilber M. Brucker
Secretary of the Army

The Soviet Union is engaged in every kind of aggression, direct as well as indirect, in order to harass, divide, confuse, weaken, and eventually destroy the Free World. In the face of this enemy who attacks in every quarter, and strives by every means to achieve world domination, we certainly cannot afford to have any gaps in our armor.

The Sino-Soviet bloc has more than 8 million men under arms at this very moment, including 4 million men in the armies of Red China, North Korea, and North Viet Nam. Active Communist forces include over 400 ground divisions, 500 far-ranging submarines, and more than 25,000 modern aircraft.

The Soviet Union has 2½ million men in its ground forces alone, organized into 175 ground divisions, most of them armored. Because of its huge trained ready reserve, it could expand its ground forces to 8½ million men, and 300 divisions within 30 days. Within the first year of total mobilization, its ground forces could be raised to 14 million men, and 500 divisions could be ready to fight.

If we were less well prepared for limited war than we are for the remote contingency of all-out nuclear war, only two courses of action would be open to us in the event the Communists launched limited aggression: We would either have to let them succeed with conquest on the installment plan, or we would have to pursue the course of desperation by precipitating the suicidal nuclear holocaust we are striving by every means to prevent!

We deployed no great military force either in Lebanon or in the Taiwan Straits. The greatest force working for the prevention of war and the deterrence of aggression was the force of our devotion to principle. By our resolute stand we told the masters of the Communist conspiracy: You shall not continue to consume the Free World bit by bit through the threat of military attack. You shall not force free men to negotiate from fear. You shall not advance yourselves further toward your avowed goal of world domination by the employment of "ballistic blackmail."

If we are to be successful in preventing war, any potential aggressor must be impressed not only by the quality of our armed strength, but also, and more importantly, by the quality of our spirit—our will to win, our unity of purpose, and our real dedication to the ideals we espouse.

LOOKING AHEAD WITH THE ARMY

General Lyman L. Lemnitzer
Vice Chief of Staff, United States Army

The question [has] existed in the minds of many people concerning the usefulness of ground forces in a nuclear war. The military requirements which exist and will continue to exist to meet the military challenges which could confront us, in the form of either general or limited war, and the essential requirement to seize, occupy, and hold ground before victory can be won, eliminate all doubt concerning the indispensable function of the Army as a fundamental element in providing national security.

While the Army has been regarded in some circles as at best obsolescent, it is in fact very much in step with the needs of the times. Indeed, in many important respects it can perhaps be considered the trail-blazer for the Armed Forces as a whole.

> **Broadly speaking, there are three [major operational missions of the Army] having direct application to both general war and limited war situations. First, we are maintaining, and must continue to maintain, forces deployed in strategically significant overseas areas, to deter aggression or to react promptly to any aggression occurring if deterrence fails. The second mission follows from the first: we must continue to maintain in the United States a mobile, combat-ready strategic force for rapid reinforcement of our deployed forces, or for deployment to other areas where danger may develop. The third mission is to continue to contribute the Army forces required for the air defense of the continental United States and our troops overseas.**

I believe that we can look with a fair degree of accuracy into a period which I shall define as being through Fiscal Year 1962. . . . In looking beyond the current fiscal year, I must speak not of what we shall have but of what we shall need. . . .

In terms of dollars, approximately 60 per cent of the Army's inventory today was procured during World War II or the Korean War. Ten per cent of it is of pre-World War II vintage. As a result, many items have reached a point where they are no longer economical to maintain or are no longer adequate in the light of current requirements. This situation is further complicated by two factors. One is the increased costs for replacement of items of equipment which are already standard. The other is the expense of new items.

> **It has been suggested that the cost of new weapons and equipment can be at least to some degree offset by reductions in military manpower, on the premise that the increased capabilities of weapons result in a diminished need for men. On the contrary, all historical experience shows that new weapons result in greater manpower requirements. A sober consideration of all the pertinent facts which apply today reveals that this pattern is being repeated—that increases in the need for men accompany increases in the capabilities of weapons and equipment.**

In reviewing the history of the limited wars which have occurred in a wide variety of places and circumstances since 1945, it becomes evident that despite many points of difference in these wars, they have possessed a common distinguishing characteristic. This was combat operations on land—in most cases, sustained combat—for the purpose

of securing control of land areas and the people in them. Thus, it is in this field of limited war capability that I believe we must continue to improve in order that we may confront the entire spectrum of threats posed to us by the Communist bloc with the optimum degree of appropriate force to meet the varying situations.

It is of vital importance to the Nation as a whole that the capability be maintained for both general and limited war to be deterred if possible and to be successfully dealt with if deterrence fails. This capability depends upon the combined capabilities of all the Armed Forces. As President Eisenhower has said, "Separate ground, sea and air warfare is gone forever." It follows that to the extent that the capability of any one of the Armed Forces might be deficient, total capability would be reduced.

STRENGTHENING OUR READINESS CAPABILITIES

General Bruce C. Clarke
Commanding General,
U. S. Continental Army Command

Despite an initial nuclear monopoly and a continuing superiority in atomic strike power on the part of the United States, Communism managed in the ten year period between 1946 and 1956 to gain control of more than five million square miles of territory inhabited by more than six hundred million people. All of this was accomplished by means short of general war.

With the increasing Soviet capability, a rising level of Communist provocation rather than a reduction of activity appears probable. In the face of this threat, what types of military forces are required?

We need deployed forces in being in critical areas of the world to provide the Soviets with convincing evidence of our determination, to bolster the morale of our allies, and fight in place, or be redeployed rapidly if necessary. . . .

We need to extend the effects of these deployed forces by providing assistance in material and training to indigenous forces. . . .

We need a mobilization base sufficient to maintain a general war posture even while participating in limited wars. This places particular emphasis on the requirement for reserve component forces in a high state of training and properly equipped.

We need a flexible logistic support system with required overseas stockage to permit support of forces deployed anywhere in the world.

We need joint and combined plans and doctrine for limited war. This includes the need for joint training exercises on a frequent basis. . . .

Finally, we need a strategic strike force sufficient to enable rapid reaction by use of measured force where and when required. This force must be capable of accomplishing assigned tasks with or without the use of atomic weapons.

In limited war, the importance of the appropriateness of measures taken, or threatened, cannot be overstressed. Mere shows of military power of any handy variety are ineffective if the power demonstrated is not of the type which would be effective if used.

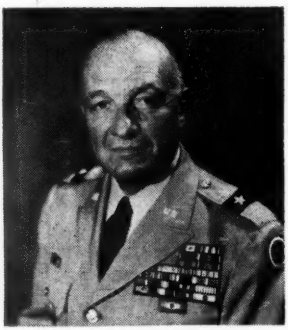
The ability to react rapidly is the most important single requirement in implementing limited war policies. . . . Aside from the military advantages of rapid

counteraction, the political advantages may be crucial in determining whether a war can, in fact, be kept limited or even whether or not we participate. When ground is lost and with each day that passes, the effort required to reconstitute the status quo may present costs we are unwilling to accept. This generates a requirement for maintenance of military forces in a high state of readiness. At least a portion of these forces must be lightweight air-transportable elements with high firepower capability and backed by readily available airlift and a flexible logistic support system.

Our strategic strike forces must be equipped, trained and ready to fight with or without nuclear weapons, and they must be well indoctrinated on the political as well as the military objectives and limitations.

While the current STRAC has a greater combat potential for limited or general war—atomic or non-atomic—than any peacetime army in our history, there are many ways in which this potential can be increased. Among these are:

● Development of modernized sea and air lift. ● Development of a greater awareness in the minds of the people of the need for forces specifically tailored to meet the most probable threat—limited war. ● Acceleration of improvements in weapons systems, tactical transport and communication equipment. ● Improved logistic support systems. ● Strict adherence to priorities and elimination of the "nice to have." ● Modernized reserve components and increased self-reliance in these forces. ● Recognition of the fact that while the primary mission of the STRAC is readiness for immediate deployment, budgetary and manpower limitations will require the assignment of other missions to STRAC units. This means that we must increase the effectiveness of every hour of training and devise means for covering these missions when STRAC is deployed.



RECENT PROGRESS IN ARMY RESEARCH AND DEVELOPMENT

Lieutenant General Arthur G. Trudeau
Chief of Research and Development

Basic research, as you know, may not have any obvious application to any known piece of hardware. However, all future advancement in weapons, organization, tactics and strategy will be affected by the research that we do today.

No matter how effective or lethal we make our weapons, we find that a limiting factor in use of those weapons is man. The weapon isn't any more effective than the soldier who has to operate it, or maintain it, or service it. We are working on tests which we hope will enable us to identify in advance the kind of man, the kind of soldier who can, and will, fight when he is put into action.

Seldom in history has a weapon or a weapons system in itself been decisive. More often what has been decisive is the tactical system developed to employ a weapon or a weapon system. This has been true in the past and is equally true today.

Our goal [in nuclear reactor development] is to have a truck-mounted power plant that can be towed over any terrain that can be traversed by a normal truck-tractor combination. This is the kind of advancement that will certainly affect logistics and transportation of the future. It has a major effect on arctic and desert operations as well as an effect on potential operations anywhere in the world.

The air vehicles which we seek are not the sophisticated aircraft which are used by the Navy and the Air Force. Rather, they are relatively simple, rugged machines designed to operate in a combat area and just above the nap of the earth. They have the characteristics of short, or vertical take-off and landing. They must be simple to maintain, economical to operate and, for the most part, have low cost.

AIMS AND OBJECTIVES OF ARMY MISSILE PROGRAMS

Major General John B. Medaris
Commanding General,
Army Ordnance Missile Command

We dare not restrict our defensive capabilities to conventional forms of warfare when there is ample evidence to indicate that space technology can introduce radical innovations. We must be ready to cope with hostile action in or from space including surface-to-surface missiles which can transport nuclear warheads or other types of destructive payloads over great distances, military satellites, inter-planetary ballistic missiles, and enemy space defense weapons systems.

The need exists today for a coordinated space defense system which can detect hostile space activities, assess their capabilities and effectively neutralize them. Because the velocities involved will be several orders of magnitude greater than other transportation systems, such a system must function in minimum time with maximum automation. A satellite intercept capability is a first requirement and we are exploring this need in terms of our guided missile systems.

In the technical areas [of missile systems] our continuing objectives are to achieve simplicity, ruggedness, pinpoint accuracy, and reliability. We are seeking higher specific impulse in advancing the development of improved solid and liquid propellants and propulsion systems. We are seeking further weight reduction by such directed investigations as miniaturization, improvements in guidance and control and counter-measures immunity.

We have met the twin requirements for rapid deployment and maneuverability, dictated by the atomic battlefield, by building mobility into all our missile weapons systems from the smallest to the largest.

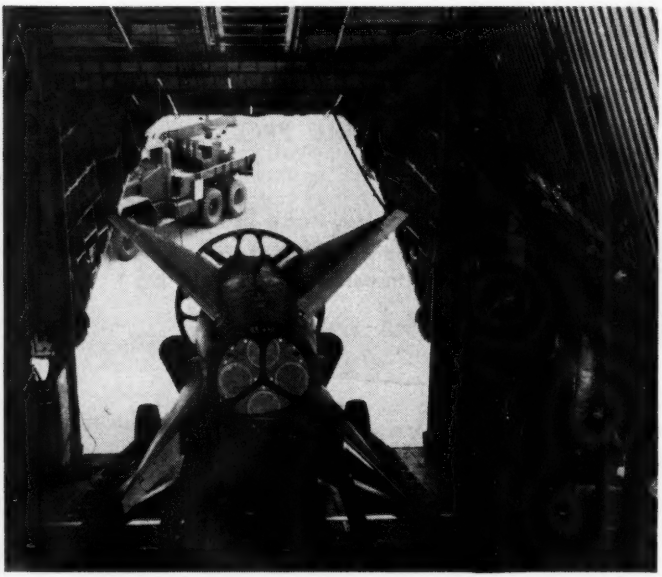
Our urgent need is for the man-portable guided missile to provide the infantryman with a light, accurate, lethal weapon to serve a variety of purposes. It must be small enough for him to handle, light enough to be carried under the hardships imposed by combat, instantly responsive, simple to operate, and sufficiently rugged to require little or no maintenance. It should defend him against armor, personnel or air attack, or help him to knock out fortified positions.

DETROIT PUBLIC LIBRARY

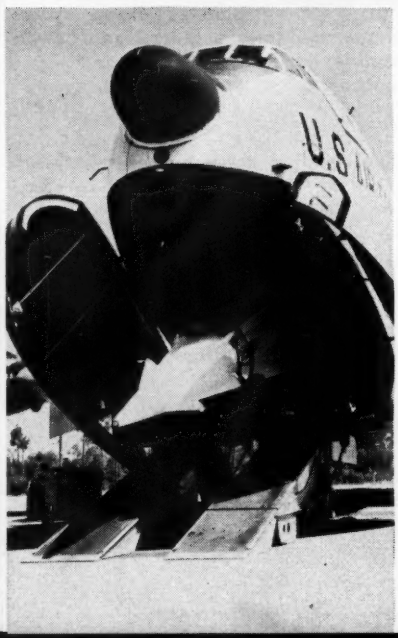
Toward maximum mobility—

Mobile Launcher For Nike Missiles

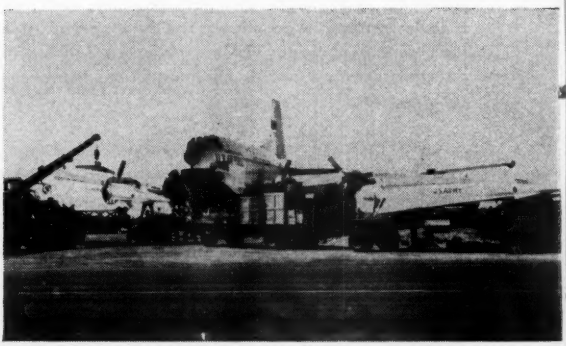
A FIELD-TYPE mobile launcher now under development will soon eliminate the requirement for prepared emplacements for Nike missiles. In tests with Nike-Ajax at Fort Bliss during the past year, it was demonstrated that an Ajax unit can be moved great distances by air transport and then emplaced and fired in less than three hours after arriving at a new location. Missiles can be resupplied with full warheads by H-37 helicopters. Nike-Hercules has similar airlift capability.



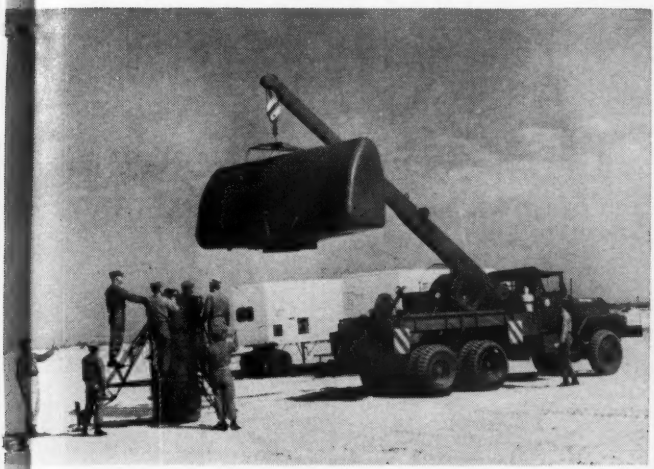
In a demonstration of its air-ground mobility, Nike-Hercules is loaded into a C-124 . . .



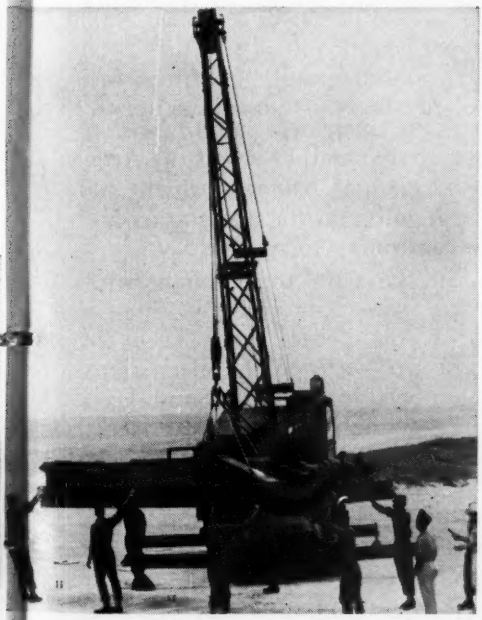
It is off-loaded at its destination (left) and placed aboard waiting trucks (below) . . .

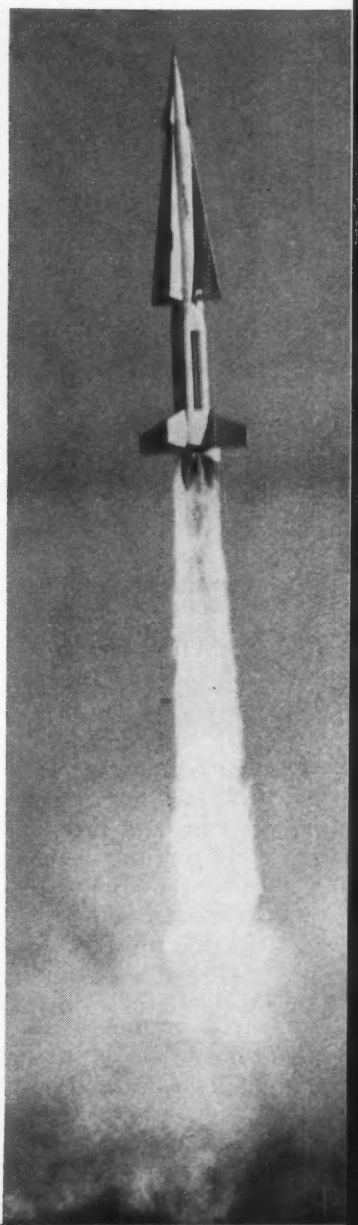


. . . which whisk it on its way with components . . .



. . . to the firing site where radar antenna and launchers are set up at launching pad. At right, the missile streaks toward its target.





Same Team—Same Goals

MILITARY

Lieutenant General James F. Collins

MAJOR changes in the outward appearance of the Army have been widely publicized during the past several years. As a result, most Americans know about our new missiles, new division organizations, and new uniforms.

During the same period, though, some important internal changes have been taking place without attracting much attention.

One of these internal changes is in the status, or perhaps one might say the increased importance, of the civilian employees of the Army —a gradual change which has been going on for many years and is continuing today.

In the past, the civilian workforce was appropriately thought of as the people who "keep the post up"—carpenters, electricians, plumbers, painters, grounds-keepers; or the office force of clerks, stenographers and typists; or the warehouse crews of receiving and shipping clerks; or the shop people working on vehicles, lathes, or radios.

But the composition of the Army

LIEUTENANT GENERAL JAMES F. COLLINS is Deputy Chief of Staff for Personnel, Department of the Army.

RY MANAGERS
a CIVILIAN PERSONNEL

civilian workforce has changed significantly in the past few years.

TODAY a great many of the Army's engineers and scientists who carry on our research and development activities are civilians. Many others are engaged in the preparation and expenditure of our annual budget and in contracting, purchasing, inspecting, and contract renegotiation. Large numbers of civilians also fill key positions in such staff functional areas as comptrollership, safety, legal matters, public information, and personnel administration. The chiefs of many of the major operating divisions in our arsenals and depots—ammunition, storage, proof and testing, packaging and processing, surveillance, maintenance—are civilians.

In rough numbers the Army is two-thirds military and one-third civilian. Military and civilian members of the Army are equally patriotic and dedicated to the principles of democracy. In the civilian group, more than 29 thousand are disabled veterans, and some 157 thousand have served in the Armed Forces. Of 346,000 Army civilian employees in the United States, men and women, 51 per cent are veterans, wives of disabled veterans or widows of men who died for their country.

YEAR BY YEAR the Army is getting closer to the actuality of a truly consolidated workforce. By this I mean a single workforce in which we put our people in the jobs where their individual capabilities can be most fully realized, not placing them solely on the criterion of whether they wear civilian clothes or uniform. It is a workforce in which the civilian members are a part of, not an adjunct to, the Army—a workforce in which the civilian as well as the uniformed segment can look forward to an interesting, progressive career.

To accomplish this, our policy is, in general terms, that civilian employees will be utilized in all non-combat positions except where military incumbents are required by reason of special skills, training, security or discipline.

We all know that the Army is entitled to just so much of the Nation's manpower pool. A part of our share goes to meet our needs for uniformed personnel; the other part is for civilian per-

> *"The officer, whether he is assigned with troops, with civilians, or with a combination military-civilian workforce, is expected to be a leader. The type of leadership required of officers in supervising military and civilian personnel tends to be somewhat different, not in essence, but in method."*

sonnel. It is our responsibility to assure that we get the most efficient use from both parts, that we don't waste the Nation's manpower.

To reach maximum effectiveness, the *total* workforce, uniformed and civilian, must be regarded as an entity and managed as an entity. Whether a man is wearing a uniform or civilian clothes, he works for the same organization and has equal responsibility for the achievement of its objectives.

TOO FEW Army officers, I believe, fully realize the significance of their responsibility in making this consolidated workforce concept really work.

My job makes me responsible for personnel management of both the military and civilian segments of the force. A few years ago we had a different setup: personnel management for the military was handled at the General Staff level while that for the civilian force was at the Secretarial level. Now the workforce has been consolidated at Headquarters, Department of the Army, and I have dual responsibility.

This same dual responsibility applies to all officers in the Army who have, or at some time will have, both military and civilian members under their control. It is not sufficient for officers to know military personnel management procedures and feel that they can leave the civilian side entirely to their civilian personnel officers. With such an attitude, they can never hope to get maximum effectiveness from their *total* workforce. To get the job done well, they must understand and take a personal interest in both segments.

MANY officers will at times during their careers supervise large numbers of civilian employees. They will make decisions that affect more civilian than military personnel. These decisions will have lasting effect because the civilian usually stays in one place for all or most of his career as a member of a permanent community.

The overall reputation of the Department of the Army as an employer depends on the relationships that exist between installations and the local communities. These relationships are shaped by the combined judgments made about what happens to all the employees, both military and civilian, in all the installations of the Department of the Army. Management-employee "incidents" will be discussed in carpools, at civic and professional meetings, at church and school assemblies, at meetings of veterans organizations and, perhaps, in the "union halls." The Army's reputation and its public relations are to this extent dependent upon effective management of the consolidated military-civilian workforce.

The handling of these two

segments is not exactly the same because there are certain fundamental differences between the command of troops and the management of civilians in the Army.

Most significant is the degree of decentralization of civilian personnel administration. Authority is delegated by the Secretary of the Army through command channels, to the installation commanders. Within the broad limitations of funds and manpower ceilings, the installation commander has the authority to hire, assign, promote, establish the pay, reward, discipline, train and separate the civilian employees. He is responsible, up through command channels, to the Secretary of the Army for carrying out these responsibilities in accordance with the established ground rules, the broad guidance and the basic program objectives of the Army.

Another difference is in the title and the job. For example, everyone in uniform has a specific title and pay, and as they go to various jobs they take their title and their pay with them. They take their rank, pay, and longevity with them wherever they go. They fill a job and the job is then paid what they are entitled to.

It is quite the reverse with civilian personnel. The man has to seek and be accepted for a position before he gets the pay which corresponds. He must qualify for the position and title. The title stays with the job; the money stays with the job.

In addition, the soldier is "mobile." He can be assigned or transferred in accordance with military requirements. The civilian works in the location of his choice, and if he moves it is voluntary and usually results in some personal benefits. His assignment is based primarily upon education, experience and training; he has to meet certain stipulated, minimum qualification requirements; he is "fitted" to the job.

Like the man in uniform, the civilian's proficiency stems, to a great extent, from individual initiative, challenging assignments, loyalty to his boss and to the organization, but his relative immobility makes him the continuity man in the organization. If the soldier and civilian employee were both mobile, continuity would be sacrificed. Continuity isn't an ill-effect of civilian immobility; it is a desirable situation that permits mobility of the military for their more direct combat assignments.

THE officer, whether he is assigned with troops, with civilians, or with a combination military-civilian workforce, is expected to be a leader. The type of leadership required of officers in supervising military and civilian personnel tends to be somewhat different, not in essence, but in method.

A knowledge of civilian personnel administration can clear up some of the misconceptions many of us in uniform have of the civilian segment. For example, a traditional complaint of military people is that it takes "an Act of Congress" to get rid of the inefficient Civil Service employee; at the same time, we feel that there isn't nearly as much of a problem in discharging the sub-standard soldier.

Now this isn't entirely true. Much of our difficulty in respect to eliminating nonproductive civil-

ians is caused by our own lack of knowledge of proper procedures. Laws and regulations are, of course, in effect to protect the rights of individuals from capricious actions on the part of their supervisors; but these rules are not designed to perpetuate the inefficient in their jobs.

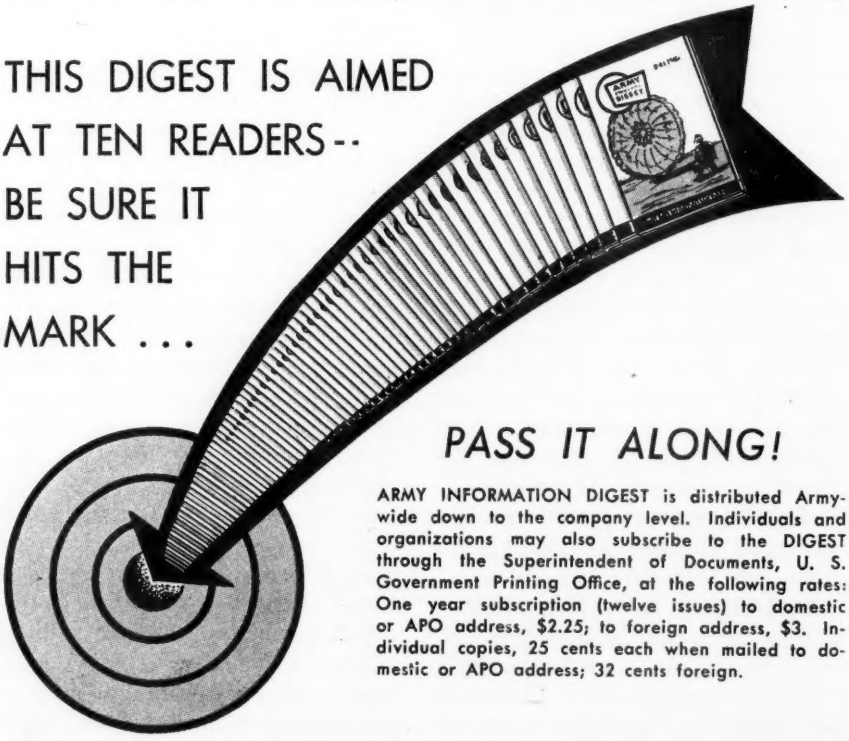
Correct application of regulations and procedures can make the management of the civilian segment an orderly, sensible matter, not solely in respect to elimination action but also for promotions, transfers and other personnel management activities. On the other hand, ignorance in this field can lead to a badly snarled-up situation in which good management is impossible.

IT IS axiomatic that the best way to have others understand us is for us to understand them. We can increase our knowledge and understanding of civilian personnel management in several ways. Appropriate courses are included in some of our Army schools and in most of our civilian colleges. The civilian personnel officer and his staff at each installation can provide an adequate orientation. There is a wealth of material that we can read on our own time.

More and more of our officers will find themselves in positions of industrial managers. The Army takes the same pride in its industrial managers that it does in its troop commanders.

Militant management is the watchword of today. For us in the military, this phrase has a twofold connotation.

THIS DIGEST IS AIMED AT TEN READERS -- BE SURE IT HITS THE MARK . . .



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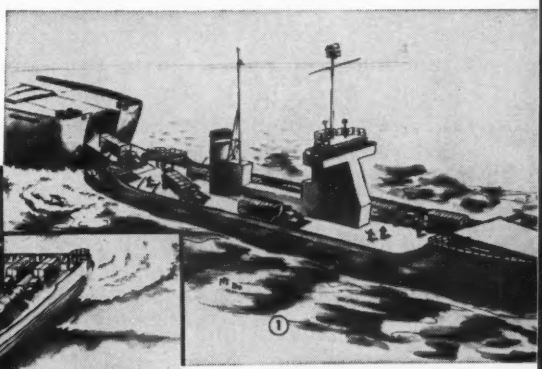
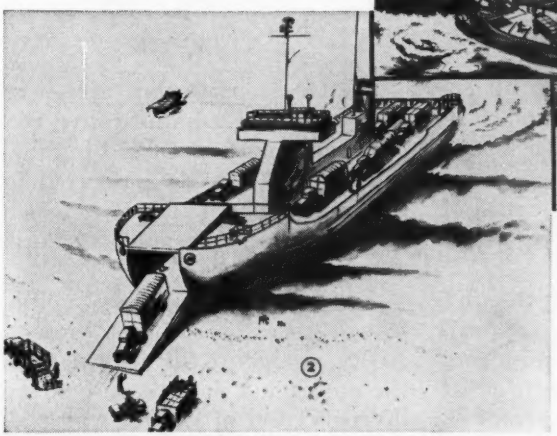
New Beach Discharge Lighter

SOON to be added to the marine fleet of the Army Transportation Corps, the *Lt. Col. John U. D. Page* is a versatile 338-foot beach discharge lighter equipped to receive loaded wheeled or tracked vehicles from roll-on roll-off vessels by means of a ramp bridging the two vessels at the stern. The shallow draft cargo vessel is then moved close to the beach where vehicles can be easily discharged over the bow ramp.

The spacious deck of the Army's newest amphibious support vessel will also allow speedy loading of vehicular cargo from conventional transport ships, for quick ferrying to shallow water beach sites. Recently launched by the National Steel and Shipbuilding Corporation at San Diego, the ship is named in honor of an Army officer posthumously awarded the Medal of Honor for action in Korea.

Loaded vehicles move over stern ramp of Navy vessel onto lighter (right)





for delivery to beach installations over bow ramp.

Data processing at Class I installations involves a close working relationship of

MACHINES, MEN AND METHODS

Lieutenant General William S. Lawton
Comptroller of the Army

AUTOMATIC data processing —electronic data processing— electronic computers—

Call it what you will, these terms have become widely familiar to the American public during the past five years. In its own realm, the Army combines these variegated phrases into an abbreviated title—ADPS, signifying Automatic Data Processing Systems.

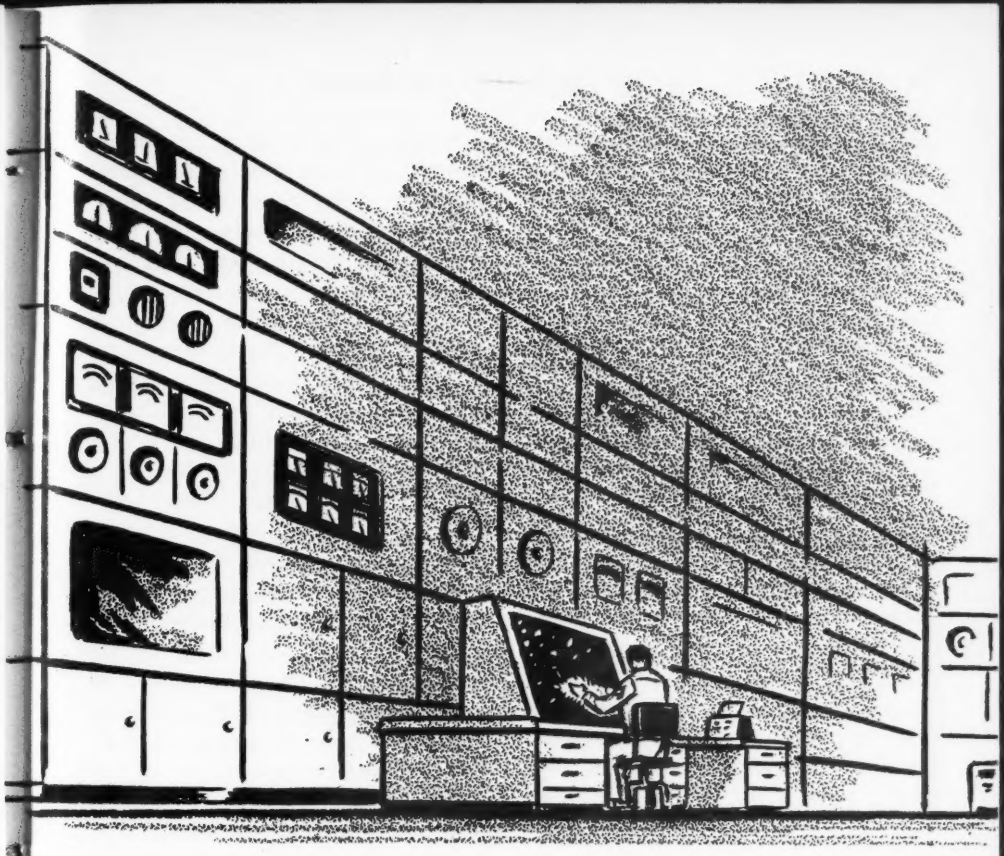
The subject of ADPS is an engrossing and challenging one. In recent years it has fired the imagination of many to find ways and means to overcome the dilemma of processing more and more paperwork with less people.

Only time can tell what the ultimate contribution of ADPS will be in solving paperwork problems. Meanwhile, it holds forth great promise, both in reducing total effort and in increasing the effectiveness of operations.

One thing is certain. The Army cannot ignore the potential of increased effectiveness through computer use. Indeed, the Army would be derelict in its duty if it failed to investigate every avenue through which its many and varied services can be improved.

IN ONE particular area—the preparation of administrative records and reports at Class I installations—the Army has pioneered in extensive research and study which has given everyone much to think about.

Attacking the paperwork problem at the Class I level through ADPS seemed to be logical from the outset, not only because of the diversification of systems which al-



ready existed but also because of the immense benefits to be obtained by integrating these systems. (Integration, in this connection, refers to the multiple use of source data to up-date financial, supply, accounting, personnel, and other records to the extent practicable with one pass of data through an electronic computer.)

There was a compelling reason for investigating the Class I area. At that level the paper mill starts; and here, too, is the source of much of the Army's data needs.

But there was still another compelling factor. It was only in recent years that punched card equipment had been introduced at the Class I level. Since most computers installed in the business-type area were superimposed over punched card systems, the question arose whether the introduction of punched card methods, however recent, was a harbinger of similar changes to come. It appeared that an appropriate time had come to find out, and not leave the process to evolutionary or diverse forces.

ONCE the decision was made to go ahead in this study area, the next question was how to proceed. Certain fundamental philosophy contributed to the final choice.

Since to err is human, the chances of making an error are multiplied each time a person manually records or manipulates data. In order to minimize this factor in a manual system, actions and figures are checked and rechecked, sometimes a dozen or more times. In addition, there is frequently a duplication of records

and reports since the same basic information is usually required for reference in more than one data processing area.

Numerous summarizations and semi-summarizations are also required in a manual system, because it is usually impossible to go directly from a large mass of detailed information to a condensed report. An electronic computer, on the other hand, has the capability of receiving, assimilating, and digesting a large quantity of data, and producing the desired condensed information with intermediate summarization resulting as automatic products of the processing.

Ideally, therefore, one objective of an optimum data processing system should be to capture basic data in machine-intelligible language with a minimum of human action as a by-product of the preparation of a source document. By this means, it is possible to reduce human effort and consequent error.

In order to accomplish these objectives, a feasibility study was launched in the Class I area, with the objective of determining (1) what was being done and how, (2) the inter-relationships between these processes, if any, (3) whether each of the processes was susceptible to computer application, and (4) whether the processes were sufficiently large to justify a detailed study.

"Current estimates are that between 50 and 60 percent of the total administrative workload is susceptible to computer application."

Among the early reactions brought to light was the popular misconception that these computers are magic brains. By now, fortunately, nearly everyone recognizes that the computer cannot "think," nor is it able to exercise pure judgment. Computers can, however, perform decisions so long as finite rules can be established upon which decisions are based. Unfortunately, few people are adept at establishing these finite rules—and even then a concentrated effort is required.

It is in the latter area that the need for time-consuming study arises, making it essential to approach a study in the Class I area with great care before plunging headlong into computer use. Otherwise, a pattern might be set for installation of computers at some 40 or more Class I locations. The stakes were high enough to warrant exhaustive examination before moving ahead.

THE initial step in determining the feasibility of computer use was an accurate inventory of the data processing workload. Since it is the records and reports required by management which creates the need for recording basic data at the source, the starting point of the study was the Army Regulations which set forth the authorized recurring reports. Additional reporting requirements imposed by intermediate command levels and the installation itself were obtained from local reports control offices.

From this base, a complete inventory of data processing was obtained by following the chain of paperwork from the original requirement down to the point

where the information entered the system through a source document. The cost of this data processing was computed by extending, at a standard cost, civilian and military man-hours required in the preparation of these records and reports. At the same time an estimate was made of the portion of each procedure adaptable to automation.

FROM this study, some noteworthy findings emerged—

Even though the missions among Class I installations vary, the data processing areas are substantially the same. More than 1,000 separate records and reports are maintained at most installations, and the great majority of these are identical for all installations.

The total annual cost of administrative processing at a selected typical Class I location is about $1,200,000. This does not include supervision or review and analysis, nor does it include the preparation of source documents.

While it was originally estimated that perhaps 40 percent of the foregoing cost represented work which might be applied to a computer, as the study progressed it developed that this figure was conservative. Current estimates are that 50 to 60 percent of the total administrative work-load is susceptible to computer application.

To provide adequately for the required processing, a computer costing somewhere between $100,000 and $300,000 per year would be required. This estimate included hardware, personnel and supplies.

An important finding resulting from the feasibility study was that no single area of data processing in and by itself (supply, personnel, financial) would economically support the operation of an ADPS. By designing these systems around an integrated pattern, however, it was concluded that a computer would be a sound financial investment, provided the system were operated as a service center for the entire installation.

". . . It is clear that complete and careful study must precede a decision to use this costly equipment; and detailed planning and preparation must precede the installation of an automatic data processing system."

BASED on these conclusions it was determined that it would be wise to proceed with an exhaustive engineering study to design a system and establish specifications for selection of equipment to accomplish explicit requirements.

The primary difference between the engineering and feasibility studies is in the detail to which the engineering study is carried. Where the feasibility study is concerned with the general processing of data for records and reports, the engineering study must determine how each element of information is processed and in what organizational sequence.

New techniques and procedures were developed in the engineering study for obtaining the basic data and for analyzing the results in order to design the new system for the computer.

Five major areas for fact finding

and system design were established, as recommended in the feasibility study. These were supply, civilian personnel, military personnel, finance, and miscellaneous—the latter including such activities as the film library, training aids, vehicle registration, and the like.

In the engineering study, these general areas were further divided into logical sub-areas—the seven technical services within supply; and, within the technical services, items accounting, financial inventory accounting, stock funding, and the like. The equipment specifications developed and submitted to the computer manufacturers generally fell within the five major areas. Complete integration was the objective within each area, and integration between areas was provided for wherever interdependent action was indicated.

An objective of the new system is to eliminate human action to the maximum extent practicable and, if possible, to obtain as a by-product of the source document the machine-intelligible language which can be fed into the computer system. This information—together with specifications for required files, processing, and output as presented to the computer manufacturers—delineated the system requirements. At the same time it left the manufacturers relatively free to adapt the capabilities of their special equipments toward optimum solution of the problem.

EXTENSION of ADPS to other installations will be facilitated by criteria established by these studies, since procedures in the field normally are established and dictated by regulations published at Headquarters, Department of the Army level. Thus the designed system for one location can be applied at the majority of other Class I installations with a minimum of work and effort, except perhaps for the establishment of workload factors and the analysis of any differences in requirements. As the new system is proved out in actual operation, the criteria will be disseminated to the field.

NEW techniques in this young and growing field are being developed continually. Naturally, some mistakes have been made and perhaps others will occur in gaining knowledge through experience. However, it is clear that complete and careful study must precede a decision to use this costly equipment; and detailed planning and preparation must precede the installation of an automatic data processing system.

Unmistakably clear is the fact that ADPS is not to be considered a panacea for administrative and logistical ills. It cannot replace sound systems planning.

Experience gained thus far indicates that use of computers demands a higher degree of systematizing than ever before. The automatic data processing system is neither wholely automatic nor limited to the computer itself. It must be designed with as much "automatic" action as possible and at the same time must consider, in addition to the computer, a whole family of auxiliary equipment and the whole functional system it will serve. This systematic planning and procedural design must precede and be an adjunct to ADPS.

Keeping Current With the

CONTEMPORARY MILITARY READING PROGRAM

A synopsis of selected books included in the 1958 Army Contemporary Military Reading List of professional interest to Army members.

THE RED ARMY edited by *Basil Henry Liddell Hart, Harcourt, 480 pp. $6.*

Compiled here are 24 articles, largely nontechnical in nature, centering on the Soviet Army and its predecessors, written by Liddell Hart and other experts of various nationalities. Included are special articles on Russia's campaigns, political background, imperial heritage, purges, partisans, policy and strategy.

WAR AND PEACE IN THE SPACE AGE *by Lt. Gen. James M. Gavin, Ret., Harper, 304 pp. $5.*

Presenting his personal observations on problems of United States defense, the World War II commander of the 82d Airborne Division and former director of Army Research and Development, now retired, examines and evaluates various aspects of national defense programs and policies.

GOVERNMENT AND SCIENCE *by Don K. Price, New York University Press, 203 pp. $3.75.*

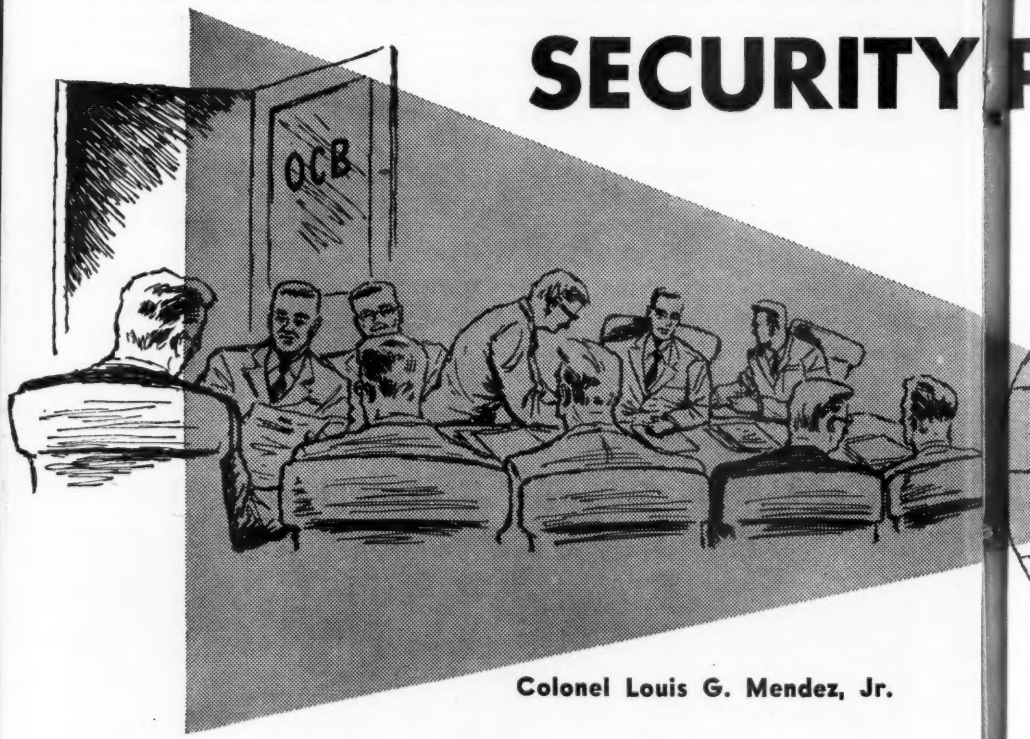
A collection of lectures delivered at New York University in 1953 by the man (now an associate director of Ford Foundation) who helped formulate legislation that created the Atomic Energy Commission and National Science Foundation. These lectures develop the theme of the importance of science in shaping governmental and administrative institutions of the Nation.

ADVANCING THE MILITARY READING PROGRAM

SINCE inauguration of the Army-wide Contemporary Military Reading Program, libraries serving the U. S. Army all over the world have been having a heavy run on their collections—like this one in the USAREUR Special Services Reference Library at Nuernberg, Germany. Ten of the book kits are being rotated among the U. S. Military Assistance Advisory Groups from Ethiopia to Norway, from Pakistan to Portugal which the Library serves. Above, Major Leslie P. McMorrow of USAREUR Information Division selects a book from the special display.

Front-line reports in the Cold War aid OCB in formulating decisions involving

THE SOLDIER AND SECURITY



Colonel Louis G. Mendez, Jr.

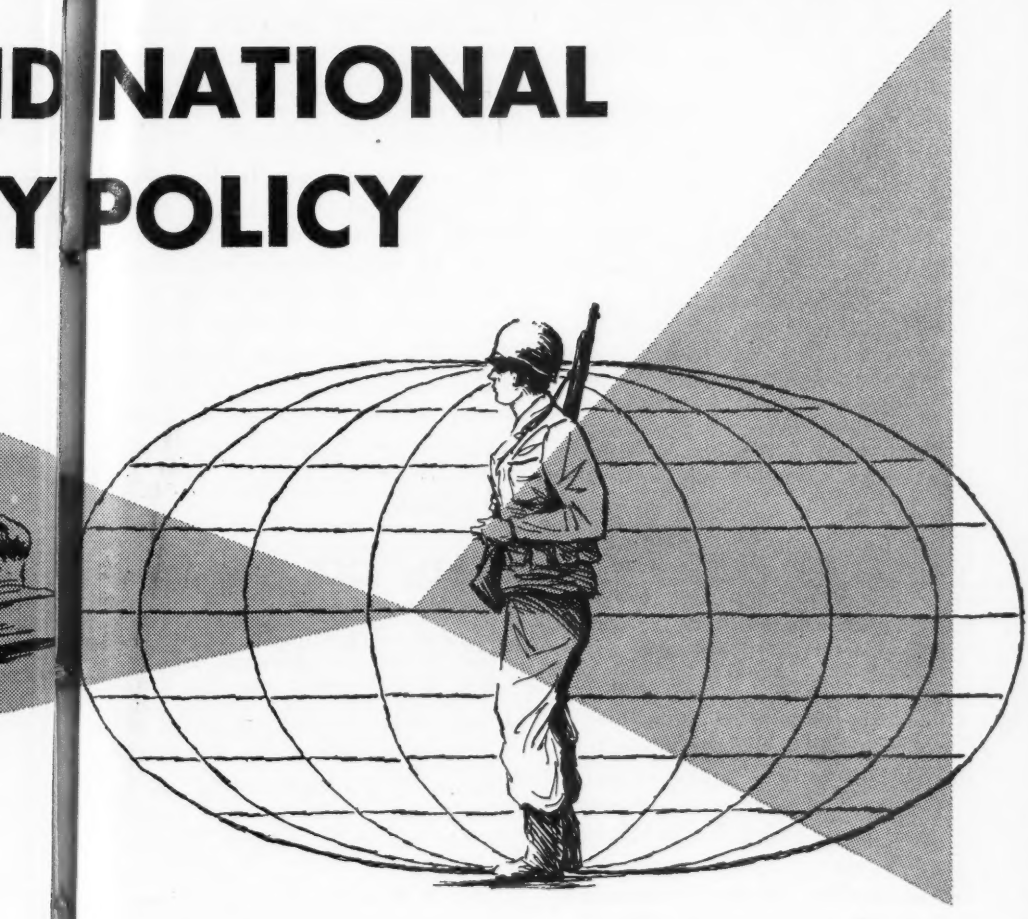
IN A shooting war the role of the individual soldier is well defined, and each individual can know that he is doing something concrete—something that can be seen, measured. The enemy is visible. Actions can be and are described to the public. The ebb and flow of battles and campaigns is writ large for all to see.

COLONEL LOUIS G. MENDEZ, JR., Infantry, is Special Assistant for OCB Affairs, Office of the Deputy Chief of Staff for Military Operations, Department of the Army.

In a cold war, however, the enemy is a vague, shadowy, clouded figure. Battles are fought in a rarefied air of ideology, high-level economics, policy statements, psychological advances and defeats. The average soldier cannot feel, can scarcely know in fact, that he actually plays a role as important as though he were shooting at a visible foe.

Although he may not be aware of it, the actions and reactions of the individual soldier are watched, reported on, and carefully weighed

D NATIONAL
Y POLICY



as part of a program that has a continuing and constant bearing on formulation of national security policy of the Nation—a program which results in reports and recommendations that reach the desk of the President himself.

The actions of the soldier and the unit abroad, and the reactions of the individuals and of the governments of the host countries —all shape the cutting edge of policy-making in a cold war.

Such actions and reactions may range from the effect of soldierly bearing—or lack of soldierly deportment of an individual—to the cooperative spirit in which a large unit participates in joint maneuvers with units of the host nation. They may range from creative community relations such as a company playing host to orphans at a Christmas party, to the opposite side of the scale involving prosecution for criminal conduct in a foreign land.

THE machine for administering the program in which the in-

dividual soldier plays this role is the little known Operations Coordinating Board (OCB) which is part of the National Security Council structure.

Among its functions, the Board maintains a steady finger on the pulse of all of the various aspects of national security policy. This is accomplished through a continuous process of reassessing United States interests and means for protecting them which face both the policy-makers and the coordinators in carrying out the Nation's policy objectives.

At least once each six months a full report is made on all aspects of each of these objectives for a specific country. This report goes to the National Security Council and the President for his study at meetings of the Council.

In formulating these reports, the OCB goes down to grass roots—the front line forces for today's Cold War. Included here are not only the diplomatic and economic, but also the military representatives of the United States abroad. This means more than countries where the United States may have troops, or where active alliances exist—it includes every country with which diplomatic relations are conducted.

On-the-spot planning and coordination of all these forces is accomplished through the United States Ambassador, who is chief of the Country Team, which is essentially a miniature OCB at the country level. The Country Team also includes the MAAG chief, the U. S. Mission Chief, the economic advisor from the International Cooperation Administration and a public information advisor from the United States Information Agency.

Comments are requested from these Country Teams and from the Unified Commanders under the Joint Chiefs of Staff.

The military representatives, in turn, request reports from component commands, MAAG's and military missions. Actions and reactions of enlisted personnel and officers, down to squad level, are often observed and reported upon.

In this way, activities of the individual soldier often have a direct bearing which filters up the line as reports are gathered together, consolidated and formed into a final report.

How The OCB Functions—

TO UNDERSTAND the workings of the Operations Coordination Board, its relationship to the National Security Council in formulating overall policy, and where the individual soldier fits into this big picture, a brief description of the functioning of the Board will prove enlightening.

Sessions of the Board, held every Wednesday, are attended by the Under Secretary of State; the Deputy Secretary of Defense representing the Secretary; the Director of Central Intelligence Agency; the Director, U. S. Information Agency; and the Director, International Cooperation Administration.

Attendance also has been approved of the Chairman, Atomic Energy Commission; the Under Secretary of the Treasury; the Deputy Director, Bureau of the Budget; the Special Assistant to the President for NSC Affairs (who is also Chairman of the NSC Planning Board); and the Director, Office of Civilian Defense Mobilization.

From among its members, the President designates a chairman and a vice chairman. Currently Mr. Christian A. Herter, Under Secretary of State, is Chairman. The Vice Chairman is the President's Special Assistant for Security Operations Coordination, Mr. Karl Harr.

Each board member (except the Presidential representatives) is assisted by a Board Assistant, so that collectively the group has become known as the OCBA

It must be understood, of course, that this procedure applies not only in the Army but in other services and governmental organizations and agencies as well, so that a vast cross-section sampling is obtained. In preparing its analysis which finally reaches the President, the OCB gathers and digests all of these reports.

This article focuses on the military aspects of the OCB program as carried on in the Department of Defense, and more especially in the Army.

THE OCB might be likened to the starter-battery of an automobile of which the President of the United States is the operator. He sets the machine going and steers it by providing leadership and directing foreign relations on the road to United States policy.

When the President "steps on the starter" by approving an NSC policy recommendation, he directs implementation by all appropriate agencies. He designates the OCB as the coordinating agency. Not a policy-making unit in itself, the Board assigns primary responsibility for policy execution to the agency most concerned; it assigns supporting responsibilities to other interested agencies and prescribes timing where necessary.

The Board can and does initiate new actions or proposals within the framework of approved nation-

(OCB Assistants). This group meets weekly on Friday, under the Executive Officer of the Board who is appointed by the President. The Assistants act to assist the Board in carrying out agreed action programs. They review and assess adequacy of papers to be considered by the members of the Board. They also act within their respective agencies to insure staff support and continuing interdepartmental coordination on Board problems.

When an NSC policy recommendation is approved, the President directs its implementation by all appropriate agencies, and designates the OCB as the coordinating agency. The OCB can and does initiate new actions or proposals with respect to any country, areas, or special project by recommending such actions in its periodical reports. It also develops special operational guidance which gives all agencies in the field a sense of direction. Thus the Board is the principal advisor to the President on progress in achieving U. S. objectives. It also is the primary instrument to assist in achieving integrated and effective execution of national security policies.

THE OCB staff is small and simply organized into a Secretariat, an Area Staff, an Information and Education Projects Staff, and an Intelligence Liaison Staff. Thus it is organized to analyze problems from different points of view, both geographic and functional, and on an intelligence base which furnishes an adequate appraisal of the external situation.

The staff is headed by the Executive Officer of the OCB from within the National Security Council. He provides staff support to the Special Assistant to the President for OCB Affairs and serves as adviser to the NSC Planning Board.

As a basis for discussions at the meetings of the Board, the OCB staff prepares two documents or devices—the Operations Plan (OP) and the OCB Report. Preparation of these papers reflects the resources of the various interdepartmental agencies including the systematic collection and analysis of military, political, economic and psychological information from all parts of the world.

To prepare these documents, a Working Group is formed for each project originated in the OCB or for each policy assigned to the Board by the President.

The Operations Plan translates United States objectives into courses of action, delineates tasks, assigns basic and supporting responsibilities and prescribes timing. It also will include a portion on special operating guidance, to assure a common interpretation of policy and provide a sense of direction to all interested agencies.

The Report provides information on

al security policy with respect to any country, area, or special project by recommending such actions in its periodical reports. It also develops special operating guidance which gives all agencies in the field a sense of direction. It makes sure that all agencies have the same interpretation of policy.

FROM this it may be seen that the Board is the principal aid to the President on determining progress in achieving United States objectives; it also is the President's primary instrument to assist in achieving integrated and effective execution of national security policies.

When fully and properly carried out in the field, OCB-approved courses of action generate comments from United States representatives who are in the best positions abroad to indicate whether these actions are effective. Here, often, the actions and reactions of the soldier—who may not ever realize his important role in fighting the Cold War—make themselves felt.

The OCB thus is able to determine just why actions are—or are not—effective. It provides answers to the questions of how the Nation's political, economic, military and psychological courses of action compare with those of the Soviets; reactions of our Allies and others; whether policy-makers are judging

what progress is being made with respect to each and every policy or project. These reports, as previously noted, are made every six months on each policy item. The Report is compiled from comments contributed by all of the various field agencies and from teams of experts on the country or geographical area that may be under consideration, or that is affected by the policy.

A summary statement of progress is made in the Report in relation to United States objectives, together with a recommendation as to whether policy should be reviewed—and if so why. It also highlights those major operating problems or difficulties facing the United States, and major developments during the particular period being considered.

All together, there are some 40 Working Groups continually functioning. Each consists of a representative from every member agency, plus any others who may have an interest in the particular subject. At present the Army is represented on 13 such groups, either as a principal or alternate members. Usually the Department of State representative is designated as chairman. The Working Group is the unit that performs the detailed work toward coordinating the implementation of each United States security policy document or project assigned to the OCB.

Prior to the weekly meeting of the entire Board, interested officers in each department review the papers and submit comments to the OCB member from their respective departments to assist him in deciding on his position. Then, at the session of the Board, the members discuss at length the Operations Plan and the Reports that are on the agenda.

The system thus provides an orderly and logically developed procedure for presenting positions and problems. It serves as an open forum for resolving conflicting points of view. Each OP or Report serves to focus attention of all departments of the Executive Branch of the Government at any one time on any problem for coordinated action to achieve given objectives. It also serves to face all department heads in the same direction.

Defense members of the Working Groups are designated by the Defense member of the OCB. A representative may come from the Office of the Secretary of Defense, from the Joint Chiefs of Staff, or from one of the Armed Services.

The Defense member of the OCB Working Group secures data and comments from the field. In addition to the workings of the Army organization in procuring required information and comments, already described, a further proc-

the reactions of our Allies and others correctly, and what the Soviet reaction is.

Answers or comments on these problems and questions help the Nation to understand better the Soviet's progress in all fields. The field comments, conditioned by understanding, are consolidated in the OCB where they are evaluated along with contributions from other areas. This continuing process helps provide a realistic appraisal of conditions.

Very important in the overall picture is the military aspect. Is the Nation's basic security strategy still valid? Has its policy over the last five years sacrificed the capability to wage limited war? Is our policy leaving the Nation capable of fighting only the ultimate war?

TODAY a new thesis of limited war is being widely debated. In any war the controlling factor is the principle of the objective. Since military power exists to serve a political purpose, how can it support national policy objectives?

The basic United States objective is to preserve the peace. To achieve this objective, we must not adopt a policy which will put us in a position with our hands tied—but rather will give us sufficient room for maneuvering actions covering the full spectrum of war.

In analyzing their comments and contributions to the OCB, the

ess is involved. After the Defense member presents the information to the Working Group, the Defense member receives back from the Working Group a draft of the paper being prepared. This is then referred to the proper agency (Office of Secretary of Defense, Joint Staff, or one of the Armed Services) for informal staffing. After possibly three or four attempts, a semi-final draft is sent on to the OCBA, there to be gone over carefully before it is forwarded to the OCB itself for formal concurrence or agreement.

Briefly, for Defense support, each service and the Joint Chiefs of Staff have a point of contact for OCB matters, and are required to contribute data and part-time personnel in preparation of OCB documents. Within the Army staff, responsibility for monitoring and coordinating contributions has been assigned to the Deputy Chief of Staff for Military Operations. Similar points of contact are established on Navy and Air Force staffs.

When an Operations Plan has been approved by the Board, each member issues the necessary directives to carry it out within his own department or agency. The Department of Defense designates the Executive Agent within Defense who then is responsible for an implementing letter of instruction. This goes to appropriate commands and service staff agencies for execution and periodic progress reports.

When a Report has been approved, it is submitted to the NSC. It is the device that the OCB utilizes to recommend important actions such as review or change of policy.

With similar actions on policy going on in the various other agencies represented on the Board, it may be seen that all of the elements of the Nation's power play a part. All are brought into focus through preparation of the Operations Plan and the OCB Report.

THIS, then, is the machinery which goes down to the grass roots and up to the highest levels to gather, evaluate, sift and refine a wide variety of skills, resources, abilities and viewpoints which are assimilated into decision-making on the highest level. This machinery plays its part in almost every daily announcement of policy affecting the United States in a world of turmoil and ferment today. It is reflected not only in such constructive, long-range endeavors as the Cold War, the President's People-to-People Program, Cultural Exchange and Student Exchange Programs, but also in the practical aspects of such immediate problems as those of the Middle East Doctrine and United States policy with respect to Formosa and Algeria.

field agencies on the ground can signify whether current military courses of action are providing the necessary elbow room for diplomatic flexibility.

The Board was created by Executive Order in September 1953 to fill a gap that then existed between policy planning on one hand and operational planning on the other. At that time approved U. S. policy was transmitted for execution to the Department of State which coordinated with other agencies concerned. Because top policy is written in such broad terms and language, its objectives risked exposure to as many interpretations as there were readers. The OCB was designed to make sure that all agencies have the same interpretation of policy, and that all courses of action are coordinated to achieve the most favorable climate of opinion psychologically favoring the United States interests.

IN these days when the world is growing ever more complicated, the making of policy on high levels cannot be accomplished by one man, as might have been done in the days of a Cavour, a Mazarin, a Metternich. There is too much to be studied and taken into consideration; too many aspects of any one situation that have a bearing on one or many other situations. Because policy-making necessarily involves many agencies and bureaus, it may tend to become ponderous, subject to many compromises, to watering-down of proposals.

At the same time there is all too frequently an urgent need for speed in meeting the rapid flux of day-to-day political, economic and psychological attacks upon the Nation's posture in the Cold War.

The OCB, as one of the tools by which the United States wages the Cold War, is able to work on an informal basis which favors objectivity and impartiality. Thereby it hastens the process of developing a new policy or action. Indeed, it is geared to accelerate the entire process.

OBVIOUSLY there is an element of danger in the informality of OCB action. It is possible that an act of coordinating the implementation of policy will become the basis for an executive directive without prior acceptance by the President. However, to offset this, agency contributions may be removed from informal OCB channels to formal agency channels at any time. Such action depends on the judgment and initiative of the action agency in close collaboration with its respective OCB Assistant. If major decisions are involved, the Special Assistant to the President for Security Operations Coordination may take them up with the President.

THE OCB is not a panacea for overcoming all the shortcomings inherent in our Nation's policy machine. It is specifically designed to strengthen that machine. Its potential has not been fully realized. In the face of the unrelenting Communist threat, and of a surge of revolutionary nationalism by many countries, the OCB has a potential for strengthening the orientation of all elements of the Government at home and abroad to present a unified front to the world.

When the United States can stand before the court of world public opinion so united in effort, and with a singleness of purpose giving it direction, then it will as a nation be able to express to all men the principles and ideals that have made our country great.

In reaching this goal, the individual soldier's contributions are included in the complex calculations involved in the Cold War, through the machinery of the OCB as an active agency in that struggle.

Cooperation increases effectiveness of

DIPLOMATS AND SOLDIERS

ROBERT MURPHY

Deputy Under Secretary of State

WHEN people hear that I have spent nearly forty years in our Foreign Service, they like to ask what assignment I thought most interesting or what part of the world I enjoyed the most.

I find that these are hard questions to answer. Assignments to serve with General Eisenhower as Political Adviser in North Africa and in Germany, as Ambassador to Belgium and as our first post-war Ambassador to Japan have been exciting experiences. The Good Offices Mission to France and Tunisia, in an effort to settle the problem of French troops in Tunisia, was a tense and important operation; the fact that the two governments were able to reach agreement, largely in accordance with the proposals of the United States and United Kingdom Good Officers, made it a rewarding project.

The job of Deputy Under Secretary of State for Political Affairs is perhaps less glamorous than some of the embassies and special missions abroad, but it is no less exacting. The importance and variety of the problems, reflected in huge masses of documents and memoranda, make it one of the busiest and most complicated jobs in the State Department. . . .

Reprinted, with permission, from the Fall 1958 Federalist of George Washington University, Washington, D.C.

Another aspect of the career which I have found rewarding is the close relationship which has developed between the State Department and the Department of Defense, between the diplomats and the soldiers. Our relations have not always been so close, but in an era when our country is the leader of the Free World and the strongest nation on earth, it is of the highest importance that our two departments see eye to eye and work in fullest co-operation.

My own experience with the military began in 1941 after I had already served some twenty-five years in the Foreign Service. Most of my colleagues of those early years would, I think, agree that their experience had been similar to mine. It was not until World War II that the diplomats and the soldiers, under the pressure of events, closed ranks, and began to coordinate their activities.

Plans for the Allied invasion of North Africa in November 1942 mark the turning point in these relations. When General Eisenhower went to London in 1942 to plan for the landings, he soon felt the need for political guidance. Officers from the British Foreign Office and our Embassy in London were made available for this purpose. Later when the General was established at Algiers, it was decided to appoint a civilian Foreign Service

Officer to advise him on the political situation and to prepare plans of a civil and political nature for the occupation of the area. Close liaison was, of course, maintained between the Departments of State and Defense.

This same general pattern was followed in the invasions and occupations of Italy and Germany. The political advisers imparted information and advice about American political objectives. But there was no blueprint and the relationship evolved through a series of improvisations. What is important, however, is that throughout the three-year period which led to the Axis defeat, the concept of political advisers being attached to military headquarters became an essential part of operations.

WORLD WAR II and the Allied occupations in Europe and Asia taught us that it was essential to maintain a close working relationship between the State Department and the Pentagon. It was a valuable experience; new ideas were generated on both sides of the Potomac; mutual understanding of each other's problems increased; personal relationships between the two Services developed which later would have important bearings on our embassy and military establishments throughout the world; and, finally, a small group of Foreign Service and Military Officers emerged who had a real knowledge of the requirements and complexities which ensue from a vast military operation.

To ensure full coordination between the Services at the highest level in Washington, the National Security Council was established by Act of Congress in 1947. This Council brings together under the President the various controlling elements of the Government who are concerned with military and political strategy. Its purpose is to formulate decisions on national strategy which harmonize all aspects of our policy—political, military, economic, and psychological.

To coordinate the implementation of policies which have been agreed upon by the National Security Council, the Operations Coordinating Board was established by Executive Order of the President in early 1953. It is chaired by the Under Secretary of State and also has representatives from the agencies principally involved in foreign relations.

We try to promote coordination all along the line. There are regular meetings between the Joint Chiefs of Staff and a senior State Department officer. And there is constant consultation at lower levels between officers of State and Defense.

Foreign Service Officers now regularly attend the National War College in Washington and three other Service War Colleges. The course is for a year. Diplomats and soldiers have a fine chance to argue their points of view and to understand the other fellow's problems. . . .

In Europe this cooperation between the two Services is probably now closer than in any other part of the world outside the United States. The situations in that area and the tremendous steps toward Allied Cooperation under the North Atlantic Treaty Organization have been conducive to political and military cooperation. One important result has been the evolution of the joint United States Mission to the North Atlantic Treaty Organization and European Regional Organizations in Paris, or USRO as it is called, which combines American political, military, and economic representatives under one command. Another important development has been the assignment of political liaison officers to American Commanders throughout the NATO area.

In the Far and Middle East the situation has been more complex and more unpredictable. Our military activity is of a different type than under NATO. But United States arrangements, both in our American commands and in the efforts of the Baghdad Pact and the Southeast Asia Treaty Organization, have achieved a good measure of coordination.

There is more work to be done in this field, but we are making good strides. We have gone farther than our predecessors in the Services would have believed possible. Through working togther we have already attained a great degree of respect and mutual appreciation.

The Army Signal Corps camera takes

A LOOK AT LEBANON

"LESS than war but more realistic than a maneuver" might aptly describe the experiences of U. S. Army troops who responded swiftly when the tiny nation of Lebanon at the eastern end of the Mediterranean was threatened by agents of indirect aggression.

Movements of forces put to test existing concepts of the Army's capabilities for swift deployment and the readiness status of its Pentomic and STRAC units. Men with materiel of war arrived by ship and aircraft, and moved into the field, where they set up camps, assembled supplies, established communications, performed guard duties, then continued their routine of training under near-war conditions.

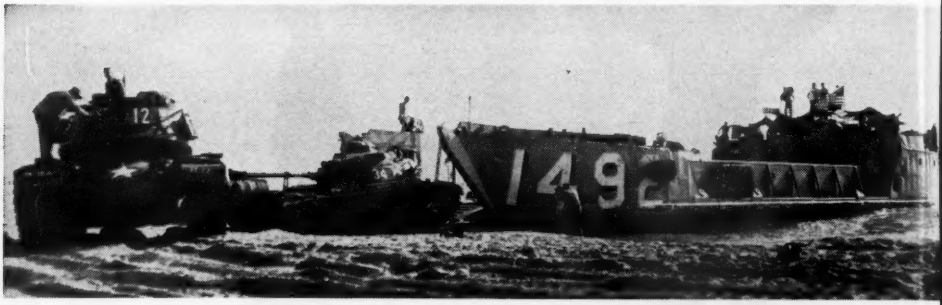
With stability restored, the troops were withdrawn as promised by President Eisenhower in his first message. As the men departed in late October the Commander in Chief issued another message stating in part:

> "Two great lessons have been taught. First, the United States is a friend to those who wish to live their own lives in freedom. We are not deterred by threats or abuse from giving needed help. Second, the United States never seeks to turn the necessities of others into gains for itself. . . .
>
> "As you return to your regular duties, I express the pride of all America in the way you have performed your duties. You have conducted yourselves in an exemplary way that assured you a friendly reception from the Lebanese authorities and people. You have served a noble cause in the best tradition of American servicemen. On behalf of the American people—thank you."

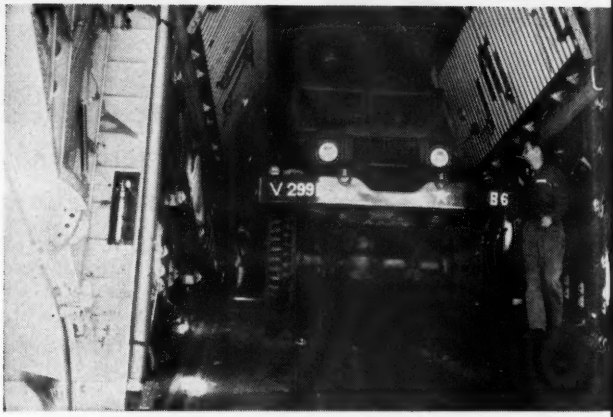
Following is an album of sights and scenes compiled by Army cameramen in Lebanon:

GETTING ASHORE—*By Beach and Air*

the troops land in the ancient port of Beirut
which once launched Phoenician trading ships,
resounded to the tread of Roman legions,
saw landing parties of Crusaders.



An LCU swiftly unloads its tanks as other materiel arrives by plane.



KEEPING SUPPLIED—

The Ever-Present Logistical Problem

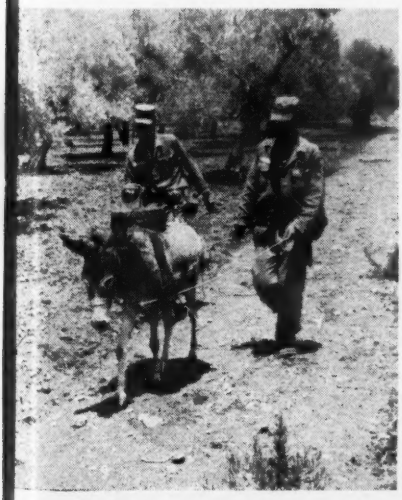
of supplying ammunition, food and equipment
is solved by air and by land
as materiel is swiftly transported to camps.

A helicopter prepares to hook onto its load.

As tanks bring in their own fuel, and ammunition is unloaded from trucks.

IN CAMP—The Daily Routine

of supply, maintenance and living under field conditions is quickly established, sometimes with improvised methods suitable to local conditions.



As witness the burro used to lay wire . . . and soldiers at a wash rack.

ON GUARD—*The Vigil Continues*

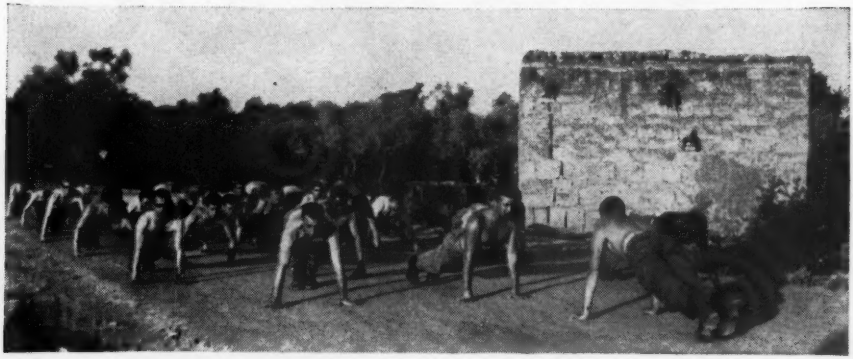
with patrols, reconnaissance missions, establishment of strong points at strategic spots in this ancient land.

Route of a patrol is pointed out, and the men move out briskly along the ancient streets . . .

. . . as others man rocket launcher posts or other defense positions.

TRAINING—In Lebanon

troops undergo strenuous training
designed to keep them prepared for any emergency.



The day starts with calisthenics, continues with bayonet practice and practice parachute jumps for some.

Major General Paul D. Adams, Commanding General, AMLANFOR, conveys the President's message to troops under his command.

The Enlisted College Training Program opens the door to educational advancement leading

Major Robert E. Lynch

WHEN SCHOOLS opened across the land last fall, something new was quietly added to the student bodies of thirty-eight of the Nation's colleges and universities. Mingling with the new enrollees was the first increment of enlisted soldier-students attending classes under the Army's Enlisted College Training Program.

Although the entire program was initiated with relatively little fanfare, and the small number at any one campus evoked scant attention, progress of these students is being watched, measured and followed with intense interest by the Army and by American educators generally.

Their progress also is being watched, probably with even keener interest, by several hundred Army enlisted men and women who had successfully met the Army's stringent requirements for application for the program, but who have not yet been selected by the Army and nominated to a civilian educational institution. These men and women hope that the program is so successful that they will have their chance next year or the year after.

MAJOR ROBERT E. LYNCH, Adjutant General's Corps, himself a graduate of the Army's program of postgraduate training in civilian universities, is Assistant Chief, Education Section, The Adjutant General's Office.

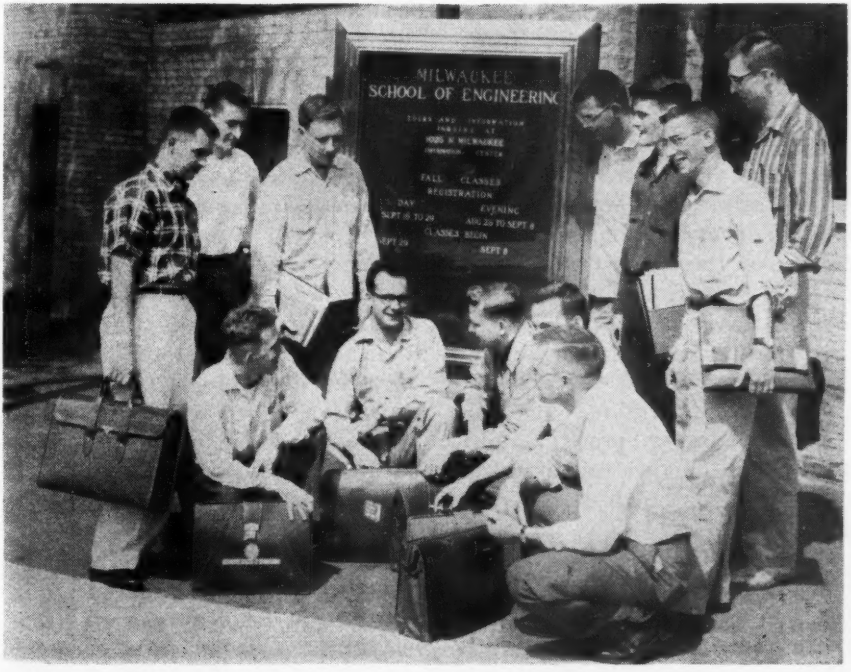
NTO COLLEGE

The very fact that so many who applied met the requirements and passed the scrutiny of the screening boards indicates that the plan fills a long-felt want in the overall educational program of the Army. Previously, since 1946 some three thousand officers had been trained under the Army Civil Schooling Program, but not until March 1958 had the Army undertaken a formal training program within civilian institutions for its enlisted personnel.

ALL together, more than 1,500 applications were received from enlisted men and women of every grade and in every conceivable assignment. Of these, more than nine hundred, received at The Adjutant General's Office before 1 June 1958—the established cut-off date—were considered in selections for the academic term beginning last fall.

Of those now attending classes under the program at civilian schools *(see box)*, some are going

Army enlisted students at Milwaukee School of Engineering get together between classes to compare notes on their civil schooling experiences.



House trailers are home to these students attending classes in Milwaukee.

to college for the first time, others are returning to round out interrupted educations, or to acquire further training in selected fields.

After selections to meet a quota for a particular college registration date have been made by the appropriate Army training agency, all applications are returned to The Adjutant General, who immediately notifies those selected. Remaining applications then are returned to the active file, where they automatically receive further consideration whenever future selections are to be made.

MEANWHILE, every encouragement is given to applicants who have not yet been accepted for actual college entrance to continue their education under facilities offered by the Army General Educational Development Program, and by nearby higher educational institutions.

Every applicant is urged to continue his education in those courses of study prerequisite to attainment of the academic goal toward which he or she may be striving.

Interested enlisted members are encouraged to consult in advance with the Education Adviser at the local Army Education Center. These advisers are professionally trained to provide the guidance which can be especially beneficial in the Enlisted College Training Program. They can advise on courses offered by nearby colleges or universities, and also may suggest valuable preparatory work which will enable the prospective soldier-student to meet the academic requirements for college-level enrollment.

IN establishing the Enlisted College Training Program, the Army took a long-range view of the future—of individuals, of the Army and of its future requirements. No detail was spared in establishing a program to match the requirements of tomorrow.

A broad range of fields of study was opened to enlisted members, ranging from the physical sciences to business administration courses and the fine arts. Applicants may indicate first and second choices of areas of training and schools in various fields of specialization.

These fields may vary, based on military requirements, but include such subjects as bacteriology, engineering, criminology, journalism and political science. Of the first group of nine hundred applicants, first choices ranged from Accounting (6 percent) and Business Administration (20 percent)

through Engineering (18 percent) and Criminology (6 percent) to Mathematics and Physics (2.25 percent each).

In addition to those currently attending classes under the program, fifty-one enlisted men, selected from among applicants under a program sponsored by the Chief of Ordnance, are currently training at the Fort Wayne Extension of Purdue University and at the Milwaukee School of Engineering. The courses at these two schools—of particular value in the field of guided missiles and special weapons—are designed to provide the Army with trained manpower in these fields.

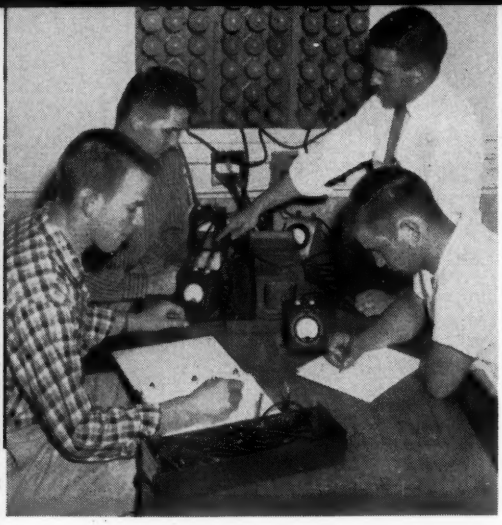
THE Enlisted College Training Program was inaugurated on 13 March 1958 with publication of AR 350-260 and Department of the Army Circular 350-14. The Regulations set up stringent requirements. Applicants must be on active duty as Regular enlisted members, inductees or Reserve Forces Act personnel. They must possess a General Technical Aptitude Area Score of at least 120, be physically qualified, possess or be eligible for at least a Secret security clearance, be a high school graduate or hold an equivalency certificate. They must have completed one year of active service at time of nomination to the college and be of an age which will permit completion of training prior to their thirty-fifth birthday. A waiver on age may be exercised in exceptional cases.

Applicants meeting these basic requirements are certified with proper indorsements to The Adjutant General. Each application is then reviewed and evaluated by a professional educationalist to ascertain the individual's aptitude for college training. Upon

ARMY ENLISTED TRAINING PROGRAM IN CIVILIAN EDUCATIONAL INSTITUTIONS

(Enrollments as of 15 November 1958)

University of Alabama	3
University of Arizona	3
University of Arkansas	2
University of California	1
Bowling Green State University	1
University of Denver	1
Georgia Institute of Technology	2
University of Georgia	1
Georgetown University	2
University of Hawaii	2
University of Illinois	2
Indiana University	2
State University of Iowa	2
Kansas State College	1
University of Kansas	2
University of Maryland	2
Michigan College of Mining and Technology	1
Michigan State University	3
Milwaukee School of Engineering	31
University of Minnesota	1
University of Missouri	2
Montana State University	1
New Mexico College of Agriculture and Mechanic Arts	1
University of New Mexico	1
North Carolina State College	1
North Dakota Agricultural College	1
Ohio State University	4
Oklahoma State University of Agriculture and Applied Science	2
University of Oklahoma	1
Municipal University of Omaha	1
Pennsylvania State University	1
University of Portland	1
Purdue Technical Institute	27
University of Tennessee	1
Texas Agricultural and Mechanical College	2
University of Texas	4
University of Utah	2
University of Washington	2
Number of Enrollees	120
Number of Schools	38



Subjects in basic electricity make up a major portion of class room time for these civil schooling students.

determination that the applicant is qualified, his application is entered in the active file mentioned previously.

Upon notification that he has been selected, each applicant must advise The Adjutant General of his willingness to reenlist for three or six years. If selection is for one year of training, he must reenlist for three years; if for two, he reenlists for six years initially.

First year of this enlistment will be spent at the college or university selected by him, or designated by the training agency for study commensurate with the individual's desired field of major emphasis and past experience. The last two years will be in an assignment where maximum utilization of his training can be expected. If nominated for two years, the first two years are spent in study, the remaining four in an active Army assignment.

The Army, it should be emphasized, does not actually enter the prospective student in any college or university. The institution itself passes on applications that have been certified through the Army. Once the individual has been selected by the Army and nominated to the civilian college or university, his admittance depends on the evaluation of his academic achievement and potential by the university officials.

Applicants who have acquired college credits prior to selection under the program have the distinct possibility of attaining a baccalaureate during the period of Army-sponsored study. Not only is the opportunity itself unique, but some provisions of the program are particularly unusual.

For instance, not merely academic years of training are provided—but entire calendar years. This means that the serious student attending summer school classes as well as the regular semester periods may achieve junior or even senior year course credits.

While obviously it is too early to make any evaluations of the first group of students who have been enrolled—or even to make any predictions about the future impact of the program on individuals and the Army—judging from the interest already generated, the success of the plan appears to be insured.

All in all, the Enlisted College Training Program presents a singular opportunity to qualified career men and women who know what they want to do in the Army, and who want to improve their capability to perform that job. The long range impact of the training is twofold—it will help the individual grow with the Army, and will help the Army of the future meet its personnel requirements.

A sergeant makes the grade—

FROM CAMP TO CAMPUS

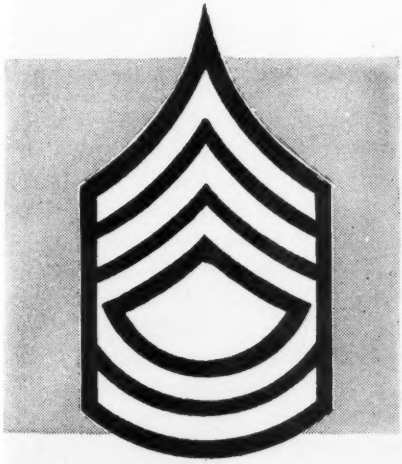
Captain J. J. Conner

SERGEANTS get around a lot in the Army these days. You find them all over the world, doing all kinds of jobs, in all sorts of places. Come to the University of Florida and you will find one of them a student in the College of Engineering—the first Army enlisted man to be enrolled as a full-time student in a course leading to a college degree.

William B. McDonald, Sergeant First Class, United States Army and William B. McDonald, student, University of Florida are one and the same man. He lives with his wife and two young daughters on the outskirts of Gainesville. Few of their neighbors are even aware of Mac's service connections, and since he doesn't wear his uniform to class, many of his fellow students would be amazed to learn he is a paratrooper in the Regular Army.

From all outward appearance, Mac is just another undergraduate student working toward a college degree. There is little to indicate that this young soldier, loaded down with books and slide-rule, is on active duty, drawing full pay and allowances, preparing for the day when he will add the skills of an electrical engineer to the ever-growing technical needs of the modern Army.

How does he happen to be enrolled? Mac's story is an interesting one—a story whose ending is not really an ending at all but a beginning.



TODAY under Army Regulations 350-260, qualified enlisted men may apply for college training and, upon approval, will be enrolled in a college for up to four years of study, serving in the Army an additional two years for each year spent in school.

But this regulation was not in existence two years ago when Sgt. McDonald applied for schooling. It was a lot harder then. Not only did he have to apply and qualify;

CAPTAIN J. J. CONNER, Armor, is currently enrolled in the University of Florida School of Journalism under the Army Civil Schooling Program.

Sergeant McDonald and University of Florida PMS&T check over regulations applicable to Army civil schooling program.

he had to convince authorities that the idea was feasible. This was just what he did—but it wasn't easy.

Mac was barely 17 years old when he enlisted in the Army in 1948 and volunteered for parachute training. Assigned to the 82d Airborne Division, he remained in that unit four years, making some 40 parachute jumps and rising to the rank of sergeant.

In 1950 he married and went to live at Fort Bliss, Texas, where he attended the Army Guided Missile School. Upon graduation, he was sent to Korea and from there was assigned to the ROTC Department, University of Florida. Here, among his other duties, he helped coach the winning ROTC rifle team; here, among his other thoughts, came the dream of going to college.

Mac had taken a college-preparatory course in high school back in Tulsa, Oklahoma; he was interested in electronics; but could he pass a college entrance examination? There was one way to find out. He tried, and did. That question was answered, but others remained. A college degree was still in the realm of wishes. Then an idea was added to the dream.

The suggestion came from one of his fellow sergeants in the ROTC detachment—Why not stay in the Army and go to college too? Ridiculous? No, the Army needs engineers and it also needs experienced NCOs. Both he and the Army would benefit. In fact, there was an Army Regulation—AR 350-200—which provided for the sending of selected personnel to civilian schools for special training. Here, perhaps, was the answer.

They looked up the regulation and found that enlisted men were

included. Then they consulted with the ROTC department commander, and asked his advice. "There is just one way to find out for sure," said the Colonel. "Put in an application."

Sgt. McDonald's application, accompanied by a letter from the College of Engineering and an endorsement by the colonel, was sent to Third Army, approved, and forwarded to Department of Army. Here it was considered and returned "Disapproved."

It wasn't that the Army was against the plan (everyone thought it was a good idea); it was just that the situation had never come up before. No allocation for such an assignment was available at Third Army level; authorization would have to come from one of the technical services—and Mac was not in a technical service.

Finally, at the Office of the Chief Signal Officer, Mac found a glimmer of hope. The Signal Corps liked the idea. In fact, they had already considered sending enlisted men through college. Here was an NCO with a good record who was not only qualified, but intensely interested both in going to college and staying in the Army. They would consider the matter further.

Back in Gainesville, Mac waited for the answer. It came in a telegram: APPLICATION BEING RECONSIDERED . . . RESUBMIT APPLICATION TO CHIEF SIGNAL OFFICER DEPARTMENT OF ARMY WASHINGTON, D. C. This was followed by a letter from the Personnel and Training Division, U. S. Army Signal Corps. Because of his "incentive and motivation," Mac had been chosen to pioneer the Army plan to send qualified noncommissioned officers to civilian colleges.

Now a full fledged student, the sergeant consults instructor in Descriptive Geometry as he pursues his goal of an engineering degree.

IN JUNE 1957, Sgt. McDonald entered the University of Florida, a freshman in the College of Engineering. It was stipulated by the Army that the entire four-year course must be completed in three calendar years, including summer sessions. The College of Engineering worked out Mac's schedule so this could be done. It meant taking on a heavy academic load—more classes and longer hours than the average student carries.

The studies were not easy. Mac had been out of school for ten years, and engineering is not exactly a "snap" course. There was lab work to do, assignments to complete, lectures to absorb, books to read and understand, formulae and theories to master. Mac learned to study all over again, learned to budget his time, to concentrate and organize his work.

Today Mac's faculty adviser is particularly impressed with the quality of his work in view of the heavy schedule he carries. Of course, Mac still has a long way to go; much work still lies ahead. But the hardest part is over. Now he looks forward with confidence to that day in June 1960 when he will graduate as a Bachelor of Science in Electrical Engineering.

WHERE will Sgt. McDonald go after graduation? He isn't sure yet, but it will be somewhere in the Signal Corps on a job where he can put into practice his hard-won skills.

Does he plan to stay in the Army after serving his obligatory tour? Oh yes, for at least 20 years, maybe 30, he says.

Many of Mac's classmates are veterans, "They tell me that if only they had known about this program, they would have stayed in the service. I feel like a recruiting sergeant," Mac says.

SGT. McDonald has some words of interest and advice for the hundreds of enlisted men who will follow in his path. In a letter to the Office of the Chief Signal Officer, he wrote: "While this is the greatest opportunity I have ever had, it is also the most demanding in time and effort . . . The Army student finds he is closely observed while at college by everybody who knows of his being in the service . . . He represents a personal investment to every taxpaying student and professor . . . He will find everyone most cooperative and helpful . . . While I do not advise an Army student to advertise himself or take advantage of his status, he must be continually aware of his added responsibility as a representative of the Army."

Mac gives credit for his opportunity to all the people who took an interest in his case. "I used to think the Army was an impersonal machine, with no time to worry about an individual. But I was wrong. A lot of people of all ranks worked a lot of extra hours in my behalf. Everywhere I went, I was shown the greatest consideration; everyone I talked to was sincerely interested in me. Even those who couldn't help went out of their way to find someone who could. It's a good feeling to be part of an organization like this."

With Mac's goal of a college degree in a critical technical field now in sight, all indications are that the Army—and the Nation's taxpayers—have made a wise investment in the future.

Still a supreme test of toughness—

RANGER TRAINING TODAY

INTENSIVE training in fundamental Infantry skills, designed to develop tactical knowledge, leadership, self-confidence and a better all-around understanding of the overall capabilities of the Infantryman marks the work of the Ranger Department at the U. S. Army Infantry School, Fort Benning, Georgia.

The Ranger Course now is directed towards training of the individual, rather than the unit. Graduates—including newly commissioned Regular Army second lieutenants—return to their individual units to contribute to the general efficiency of their organizations.

Instruction is provided in a three-phase system in amphibious, jungle and mountain training areas. The initial phase at Fort Benning is directed toward physical conditioning, establishment of class esprit and review of basic skills.

The second phase, presented by the Amphibious and Jungle Warfare Committee at Eglin Air Force Base, Florida, includes techniques of survival, stream crossings, use of small boats. Here, using the patrol as a vehicle of instruction, leadership and command in simulated combat situations is stressed.

In the final phase, training in mountain techniques and expedients is presented by the Mountain Training Committee near Dahlonega, Georgia. Utilization of patrols for application of command leadership principles is continued.

Coordinated training includes use of Army aircraft, fixed and rotary winged, and amphibious operations using Navy as well as Army Transportation Corps craft on the Gulf coast.

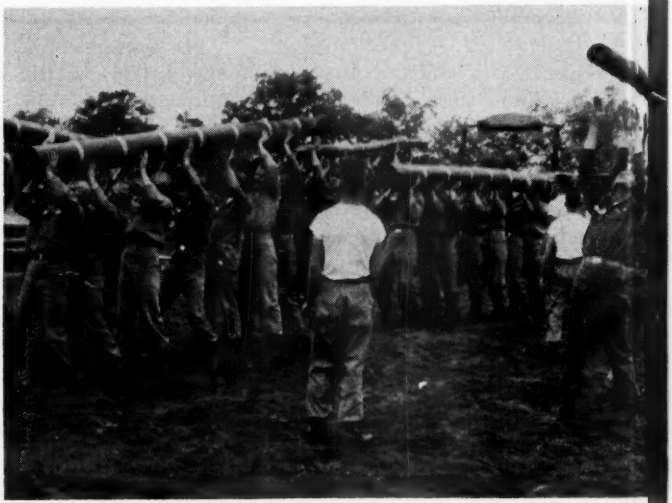
(Continued)

Ranger trainees carry out a demolitions mission on night patrol.

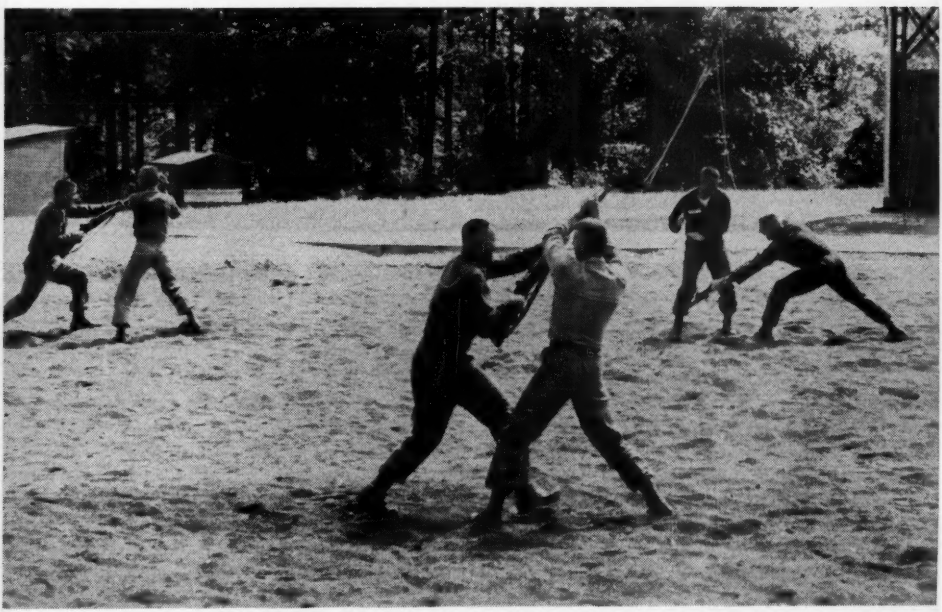
WHILE there are no longer Ranger companies in the field—the concept of the Ranger as a member of a small, highly trained unit having been changed in 1951—the tremendous value of this training to the individual soldier has been continually recognized. Today in units all over the Army there are individuals who proudly wear the distinctive Ranger Arc. They have completed the rugged three-phase course of individual training, and have returned to contribute to the overall effectiveness and efficiency of their units.

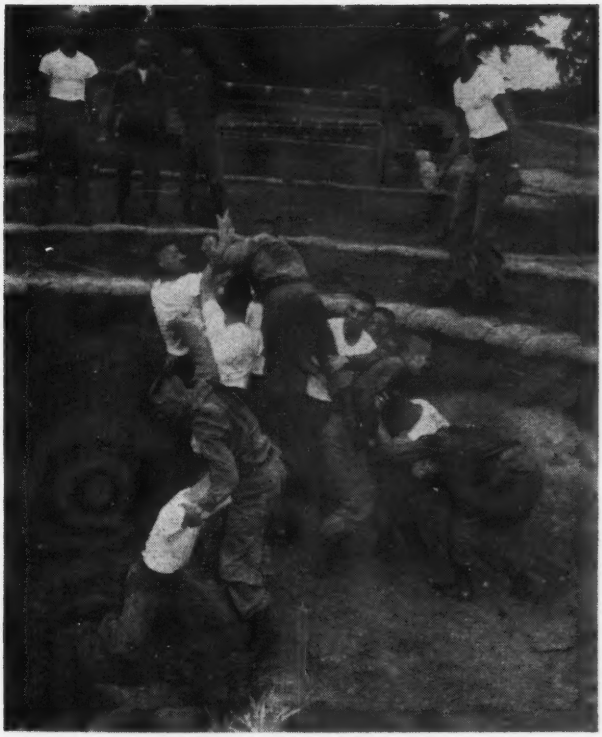
DURING TRAINING . . .

THEY DEVELOP RUGGED PHYSIQUES AND PRACTICE TEAMWORK AT THE SAME TIME.



THEY REVIEW BAYONET FIGHTING . . .





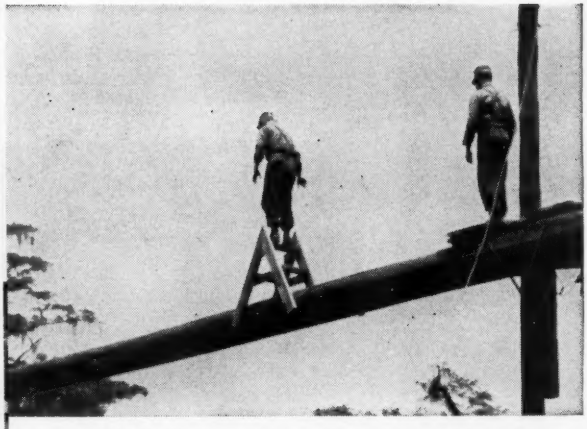
ENGAGE IN BODY CONTACT SPORTS AND GAMES . . . CROSS DEEP CHASMS ON SHAKY ROPE BRIDGES . . .

AND CLAMBER UP AND DOWN MOUNTAINS.

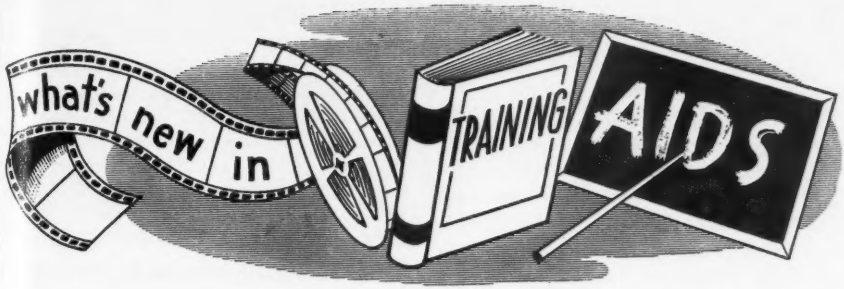
THEY SWAY ACROSS CANYONS ON ROPES . . .

AND LEARN TO SURMOUNT MAN-MADE BARRIERS.

THEY CROSS PRECARIOUS OBSTACLES . . .



AND PATROL IN FLORIDA SWAMPS.



Keep your organization current with the latest training materials by referring to this section in each issue.

TRAINING LITERATURE

While the following new literature will be published shortly, units are cautioned *NOT* to requisition copies until receipt of automatic initial distribution or the items are listed in DA Pamphlets 310-1, 310-3 or 310-4.

Guerrilla Warfare and Special Forces Operations (U). FM 31-21A—a classified supplement to FM 31-21—is essentially an up-to-date version of approved procedures. It prescribes those concepts of employment, missions capabilities and organization of Special Forces that are classified.

Bridge Model Kit Training Aid, Floating Bridge Pneumatic Float, Class 60, Aluminum Deck Balk Superstructure. TM 5-267K contains instructions on use and and maintenance of the bridge model kit with suggestions for obtaining the greatest instructional value from this training aid.

Real Estate Operations in Oversea Commands. TM 5-300 is a compilation of principles and procedures to assist commanders and their staffs in the acquisition, utilization, administration, management and disposal of real estate and related property in oversea commands.

Aerial Delivery of Supplies and Equipment: Rigging 2½ Ton Cargo Truck, M34 and M35 on 22-Foot Platforms. TM 10-500-20 illustrates techniques for rigging 2½ ton cargo truck, M34 and M35 on 22-foot platforms.

Revisions scheduled for publication:

FM 5-20, "Camouflage, Basic Principles and Field Camouflage." This revision of the 1944 edition supersedes all FM's of the 5-20- series except FM 5-20G.

FM 6-20, "Field Artillery Tactics and Techniques"—revision of 1953 edition.

FM 10-7, "Quartermaster Organization and Operations in Divisions"—revision of 1951 edition.

FM 19-25, "Military Police Traffic Control"—revision of 1950 edition.

DA Pamphlet 23-2, "Hits Count"—revision of 1955 edition.

TRAINING AIDS

Training Films recently released:

TF 3-2602, "This is Atomic, Biological and Chemical Warfare."

TF 3-2659, "Portable Flame Thrower M2A1-7, Pressure Charging."

TF 3-2660, "Portable Flame Thrower M2A1-7—Filling by Pressure, Using Fuel Filling Kit M10A1."

TF 3-2661, "Use of Field Impregnation Set."

TF 3-2662, "Surveillance of Chemical Corps Material—Surveillance."

TF 3-2663, "Handling and Storage of Equipment for Chemical Agents."

TF 3-2664, "Chemical Agents, Storage Methods and Techniques."

TF 9-2586, "Automotive Trouble Shooting—Part XVII—Hydraulic and Air-Hydraulic Brakes."

TF 11-2237, "Servo Systems and Data Transmission—Part III—Automatic Tracking and Data Transmission."

MF 20-9007, "The Big Picture—The Fire Brigade (Pentomic Airborne Division)."

GF 11-41, "Introduction to Telephone Terminal AN/TCC-3 and Telephone Repeater AN/TCC-5."

DA Transparencies recently distributed:

T 9-2-109-1, "Table III.I (added) Planning Factors Table 75mm (Increments of Three Fire Units)."

T 9-2-109-2, "Table III.I (continued)."

T 9-2-110, "Map of Area to be Defended."

T 9-2-111, "Map of Area with Vital Area Resolved into a Circle."

T 9-2-112, "Map of Area with Bomb Released Line Plotted."

T 9-2-113, "Map of Defended Area with Gun Rings Plotted."

T 9-2-114, "Map of Defended Area with Fire Units Plotted by Map Reconnaissance."

T 9-2-115, "Map of Defended Area with Attack Lines Plotted."

T 9-2-116, "Recording Form—Vital Area Sample Radius in Yards 2,000 (Index Numbers for Direction of AA Attack)."

T 9-2-117, "AA Effectiveness Clock—Vital Area Sample Radius in Yards 2,000."

T 9-2-118, "Map of Corps Area."

T 9-2-119, "Map of Corps Sector with Template Incorrectly Placed."

T 9-2-120, "Map of Corps Sector with Template Correctly Placed."

T 9-2-121, "Relocation of Fire Units."

T 9-2-202, "Taper Throttling Rod (AA)."

T 9-203, "Throttling Grooves (AA)."

ARMY EXTENSION COURSES

New Subcourses recently published:

Army Stock Fund Operations. Finance Subcourse 42, Finance School U. S. Army. A study of the basic concepts, policies, objectives, principles, and procedures of the Army Stock Fund at installation level. FIN Subcourse 41 is prerequisite.

Transportation Motor Pools. Transportation Subcourse 4, Transportation School. General transport administrative motor vehicle programs; reporting utilization and expense data; preventive maintenance policies and procedures; inspections and surveys.

Motor Transport Advance Planning. Transportation Subcourse 65, Transportation School. Advance planning factors; basic formulas for use in computing vehicle and truck company requirements.

General Transport Administrative Vehicle Management. Transportation Subcourse 70, Transportation School. Administrative motor vehicle program; reporting utilization and expense data; basic principles of maintenance; military motor movements in continental United States.

TC Organization and Agencies. Transportation Subcourse 74, Transportation School. Mission, organization, and functions of the Transportation Corps, including Office of Chief of Transportation, major field installations, and the Military Traffic Management Agency.

Military Passenger Movement I, Transportation Subcourse 75, Transportation School. Travel orders, travel allowances, and travel authorizations; carrier accommodations; carrier guides and itineraries; handling movements of individuals and groups of 14 or fewer persons; transportation requests and meal tickets.

Military Passenger Movements II. Transportation Subcourse 79, Transportation School. Entitlements of military service members for movement of their dependents; responsibilities of installation transportation officers; entitlements and procedures for movement of household goods and personal baggage.

Transportation Corps Organization in a Theater of Operations. Transportation Subcourse 84, Transportation School. Typical organizations of a transportation staff section and transportation service in a communication zone, field Army, corps, and division; transportation movements functions of the communications zone and field Army; mission, functions, and employment of the transportation movements officer.

Revisions recently published:

Protective Construction, Engineer Subcourse 305, Engineer School. Revision of 1956 edition.

Administrative Law, Finance Subcourse 59, Finance School. Revision of 1950 edition.

Recoilless Weapons, Inf Subcourse 5, Infantry School. Revision of 1952 edition.

Motor Maintenance and Supervision, Infantry Subcourse 60, Infantry School. Revision of 1955 edition.

Armored Unit Employment III, Infantry Subcourse 66, Infantry School. Revision of 1957 edition.

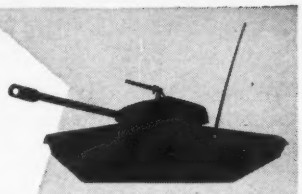
Defense in Rear Areas, Transportation Subcourse 55, Transportation School. Revision of 1954 edition.

Organization, Duties and Functions of Units in the MPC, TPMGS Subcourse 1, Provost Marshal General's School. Revision of 1952 edition.

Stockades and Hospital Prisoner Wards II, TPMGS Subcourse 22, Provost Marshal General's School. Revision of 1954 edition.

Stockades and Hospital Prisoner Wards III, TPMGS Subcourse 30, Provost Marshal General's School. Revision of 1954 edition.

Paragraphs from the PENTAGON and the FIELD



Proficiency Pay and Testing

Both an interim and a permanent plan for awarding of proficiency pay have been announced by Department of the Army. The Interim Plan will govern payments to be made between November 1958 and February 1959 after which the Permanent Plan is scheduled to go into effect. Under the Interim Plan, payments will go to designated Military Occupational Specialties arranged in order of criticality. Selection of individuals will be made by major subordinate commanders on a best qualified basis.

First proficiency testing under the Enlisted Evaluation System will take place in January in MOS designated in Circular 611-22. Proficiency payments to eligibles based on these tests will begin in March.

Documents Downgraded

The backlog of old classified military documents that has been accumulating for half a century will be reduced under a plan activated by a new Department of Defense Declassification Directive. Under it, millions of documents originated before 1 January 1946 will be downgraded or declassified. All of this material now is classified as Top Secret, Secret or Confidential.

Except within a few limited categories, the new directive cancels the security classifications on voluminous documents which no longer need protection in the national interest. Further, the directive downgrades from Top Secret to Secret those documents which are otherwise excepted from the declassification.

Helicopter Records

During recent tests at Fort Rucker, Alabama, four Army cargo helicopters set new records, running up a 97 percent availability record. Two H-21 Shawnees and two H-34 Choctaws, flying on a seven-day-a-week schedule with three shifts of pilots during each 24-hour period, were in the air during an 82-day period. They logged a total of 4,000 hours in the air, the equivalent of 12 years of normal service.

BARCs To Taiwan

Four of the Army's new BARCs (Barge, Amphibious, Resupply, Cargo) have been sent to Taiwan, together with a Transportation Corps Mobile Training Team to train the Chinese Nationalist Army in logistical resupply. The team from Fort Story, Virginia, consists of one officer, one warrant officer and 29 enlisted men, who will give intensive courses in operation and maintenance of the BARC.

Reconnaissance Drones

SUCCESSFUL test flights have been made of a new drone controlled completely from the ground, designed for use by Army battlefield commanders in surveying enemy territory. The drone carries electronic gear which reports back pertinent information as it flies over enemy areas. When its mission is completed, it returns to the launching site, a parachute is released, and the machine floats to earth.

Tests on the first models are being made at the U. S. Army Flight Test Station, Yuma, Arizona, under auspices of the U. S. Army Electronic Proving Ground, Fort Huachuca, Arizona. The drone was designed at Rheem Manufacturing Company's Aircraft Division, Downey, California.

Built to meet combat conditions in any kind of weather, the new drone can be transported, handled and launched on Army trucks with equipment now in use. Two trucks and two trailers can transport eight drone systems, including checkout consoles, launchers, boosters, and command ground systems. Removable sections—fuselage including power plant and propeller, tail assembly or wing assembly—simplify operation and maintenance.

Following exhaustive tests, the BARC now is being operated on a unit basis and is playing a valuable role in over-the-beach supply at difficult landing sites in Greenland, and in support of Air Force operations in other areas of the Far North. Developed by the Army Transportation Corps in 1951, it underwent testing for several years before being pronounced operational. It is capable of transporting up to 80 tons of payload from ship to shore, over the beach and then inland, in one continuous operation.

Medical R&D Command

Recently activated in Washington, D. C., the Army Medical Service Research and Development Command will serve as focal point for study of improved preventive medicine measures and more effective and rapid treatment techniques. Among problems under study: ionizing radiation, communicable diseases, burns and wounds, physiological and neuropsychiatric treatment.

Aviation Reserve Program

Scheduled for completion by the end of 1960, plans for expansion of the Army Reserve aviation program have been announced. The new troop basis provides for two Army Aviation battalions. Each will consist of one fixed-wing tactical transport company, three light and one medium helicopter companies. An aviation company also will be assigned to each of the ten Combat Infantry Divisions and thirteen Infantry Divisions (Training) of the Army Reserve. Enlisted members of the Army Reserve will be eligible to begin helicopter training in July.

New Fingerprinting Method

Producing a markedly clearer fingerprint than those made by conventional methods, a new battlefield process has been developed to produce instantly a tissue-thin, almost indestructible plastic cast. Developed by the Army Quartermaster Corps for use in further assuring positive identification of military war dead, it also is expected to have wide civilian uses. Fingerprint casts are obtained by spraying a liquid plastic compound directly on a finger or a surface with a latent print. It hardens immediately and can be peeled from the area to provide an easily handled, smudge-proof fingerprint.

Resuscitation Method Revived

The ancient practice—dating back to Biblical times—of artificial resuscitation by mouth again is being used by the Army Medical Service. The "mouth-to-mouth" method now is being taught at Brooke Army Medical Center where studies conducted during the past few years have proved superiority of the method in comparison with other methods now in common use.

Tuition Aid

During Fiscal Year 1959, payment of tuition costs for voluntary off-duty courses taken at accredited civilian schools and colleges, under provisions of AR 621-5, will be authorized as follows: A maximum of 75 percent tuition assistance may be provided for enlisted personnel and warrant officers. The same assistance may be provided to commissioned officers provided they agree to remain on active duty for two years after completion of courses for which tuition is given. Tuition assistance will not exceed $7.50 per semester hour; $5 per quarter hour; or $22.50 per Carnegie unit or its equivalent for high school courses.

Medicare Fact Sheet

A Fact Sheet outlining the changes that became effective 1 October 1958 in the Dependents' Medicare Program has been issued by Office of Armed Forces Information and Education, Department of Defense. The pamphlet reviews the Medicare Program as a whole, reflecting changes that have been made since the program went into effect 7 December 1956.

Reserve Corps Formed

Consolidation of seven Military Districts into two U. S. Army Corps (Reserve) in the Third Army Area has been effected. The districts of North Carolina, South Carolina, Tennessee and Georgia

have been formed into the XII U. S. Army Corps (Reserve) with headquarters at Atlanta. The districts of Florida, Alabama and Mississippi form the IV U. S. Army Corps (Reserve) with headquarters at Birmingham, Alabama. When the program is completed, the previous 49 Military Districts will be consolidated into 14 Army Corps (Reserve).

Contingency Option Act

A simple explanation of the operation of the Uniformed Services Contingency Option Act is contained in Department of the Army Circular 608-13. Under the Act, officer and enlisted personnel must, before completing 18 years of service for pay purposes, execute DA Form 1041 to indicate whether they desire to elect an option governing retirement pay benefits, for survivors.

Aluminum Raft

Capable of carrying a 12-ton load in swift currents, an aluminum raft that can be manually erected in 15 minutes has been developed by the U. S. Army Engineer Research and Development Laboratories, Fort Belvoir, Virginia. It is designed to ferry lightweight combat vehicles across water hazards. All components can be carried on a 2½-ton truck and a pole type trailer.

Improved Radar for Missile Master

An advanced long-range search and height finding surveillance radar, known as FPS-33, has been installed in the Army's Missile Master System at Fort George G. Meade, Maryland. The Missile Master guarding the Baltimore-Washington area is a completely electronic system that coordinates and controls fire of Army guided missiles.

A major advancement in the new radar is a high-gain antenna that increases range coverage by more than 50 per cent to provide rapid, accurate and reliable target information of aircraft. Both friendly and enemy craft can be identified. The antenna also increases elevation angular coverage, thus reducing the overhead "cone of invisibility." High altitude coverage also has been increased.

Trainfire Film

A 17-minute color film, MF 21-8797, has been prepared to explain Trainfire I, the new method of basic rifle marksmanship training. The film, available at major and central film exchanges, compares old and new types of individual marksmanship training, outlines changes, and cites advantages of the new system.

Detecting Radiation Hazards

USED ordinarily to detect storms and aid in forecasts, the Army's advanced weather radar systems may prove valuable in spotting and tracking of nuclear clouds. During recent high-yield nuclear tests, the regular equipment was able to measure the size and to plot the course of "hot" clouds. First photographs of a radar scope showing the nuclear mushroom were made with a special camera, and successive film exposures showed the formation, rise and drift of the cloud. Such data would be valuable to civil defense authorities and military units.

A Radiological Control Center to plot and predict radioactive fallout in combat zones has been developed at the U. S. Army Chemical Corps School, Fort McClellan, Alabama. Team-type units will be established at Field Army, Corps and Division levels to predict fallout from enemy weapons, evaluate and disseminate radiological data based on readings reported by ground and aerial monitors. First RADC prototype was organized at Desert Rock VII and VIII tests. Later exercises provided opportunities for further field testing.

DESIGNED to measure directly the natural and acquired radioactivity in a patient, a Whole Body Counting Facility recently was installed at Walter Reed Army Medical Center. It is the second facility of its type in the world and first to be set up in a medical installation. The first is located at the Atomic Energy Commission's laboratory at Los Alamos, New Mexico. By means of this device elements emitting gamma radiation can be identified, localized and their total activity quantitated rapidly and accurately. Formerly, total body radioactivity could be estimated only from study of the amounts excreted or from small samples surgically removed.

TV Training on Missiles

An outgrowth of more than seven years of study, telecasting of a two-hour course in guided missiles over a 280-mile closed circuit has been started between the U. S. Army Ordnance Guided Missile School at Huntsville, Alabama, and the U. S. Army Armor School, Fort Knox, Kentucky. Use of television enables the two training centers to save an estimated $11,000,000 by jointly using costly equipment and skilled instructors already stationed at the Missile School.

Code of Conduct

A wallet-size card bearing the six articles of the Code of Conduct is being distributed for issue to each member of the Active Army and Reserve forces. The new card, identified as GTA 21-50, will be issued to new Army members when they receive orientation on the Code of Conduct.

Reservists in Information Role

Participation of U. S. Army Reserve information mobilization designees and other non-unit Ready Reserve information personnel in current information programs of the Active Army is outlined in Department of the Army Circular 360-7. It is planned to provide personnel with practical experience in activities in which they would be engaged when ordered to active duty, and further to broaden the Army's information coverage. Reserve personnel may be assigned approved information projects for which they will receive point credits. Such projects may include arranging participation in local public events, assisting organizations to secure military speakers, advising and assisting local military personnel in public relations activities which will broaden the scope of the Active Army's information coverage.

Flight Training Program

Aimed at encouraging college students to seek a career in Army Aviation, the Army's Reserve Officers' Training Corps Flight Training Program has been extended to include 70 colleges and universities with a total enrollment of 625 senior cadets. The program was begun in 1956 at 25 colleges and already has graduated 656 Army ROTC Cadets.

Photography Contest

The 1959 All-Army and 8th Interservice Photography Contest will be conducted under sponsorship of the Adjutant General, with Department of the Army level of competition scheduled for May 1958. Details are contained in Department of the Army Circular 28-13.

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Imperceptible starlight makes possible

Improved Visibility for Night Combat

INTENSIVE Army efforts to provide better night vision for fighting troops have resulted in three devices—one entirely new in concept, the others adaptations of older ones—developed by the Army Engineer Research and Development Laboratories, Fort Belvoir, Virginia.

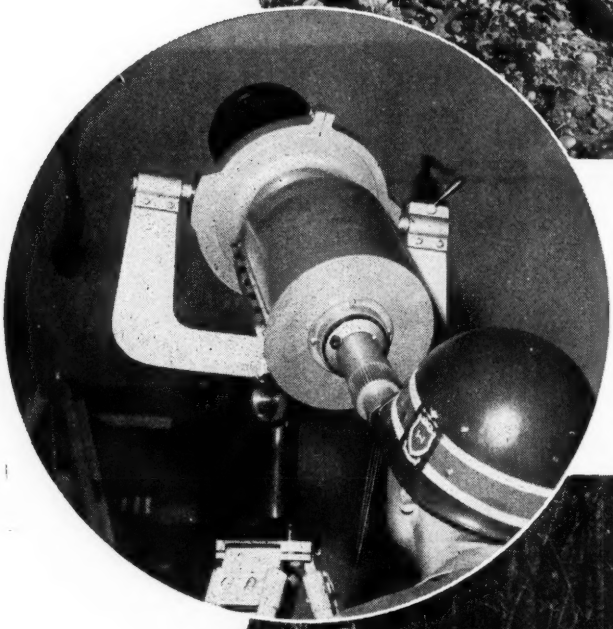
The new night vision device differs from others that employ infrared, radar, and other mediums; instead it utilizes the reflected starlight or diffused light from skyglow that falls on the objective. Through a cascaded image tube—actually two working in series and operating through an optical system which focuses the reflected light —the instrument intensifies or amplifies the small amount of light sufficiently to present a distinguished image.

Free from the complexities associated with low level light intensifier television systems, the device—technically known as a Cascaded Photosensitive Image Intensifier—requires no source of artificial light or radiation. Power is supplied by a six-volt battery which through a system of transformers and transistors provides approximately 25,000 volts. Radio Corporation of America, Harrison, New Jersey, collaborated with the Engineer Laboratories to produce it. Many civilian uses are foreseen, including astronomy.

AMONG more standard night seeing devices, the Corps of Engineers has announced development of a "metascope"—a small viewer equipped with an infrared light source and batteries. With this a soldier may view nearby objects at night without revealing his position. It is one of several infrared devices in use.

In addition, the Army's new Sniperscope is a greatly improved version of the night viewing device first introduced during the late stages of World War II. The new model weighs less than the earlier one, has greater ranger and longer life. It also is adaptable to a wide variety of infantry weapons ranging from the caliber .30 rifle to the 106mm recoilless rifle, whereas earlier versions were limited to the carbine.

(For views of devices, see back cover—Metascope, top; Cascaded Photosensitive Image Intensifier, center; Sniperscope, bottom.)



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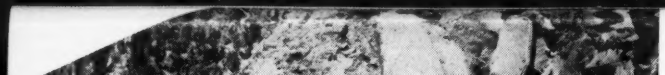
(see inside cover)